Alternative Approaches to Financial and Sporting Performance Measurement in English Professional Football

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What started out as an undergraduate project idea has developed into the proudest and most notable contribution of my life to date and I will always be grateful to my supervisory team and Sheffield Hallam University in general for the opportunities they have given me.

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Abstract

The purpose of this thesis is to combine, in a new way, variables of financial performance and sporting performance in professional football clubs to provide a new measure of overall performance. Previous literature on the topic indicates that the choice of variables used to measure sporting and financial performance has been haphazard and inconsistent. Subsequently, this thesis devises and tests a model that provides a new holistic measure of overall performance and can be used to evaluate the performance of professional football clubs in England. The model was produced using statistical analysis techniques to ensure that the correct variables were included and weighting factors on each variable added a further robustness to the model. The model is also timely in relation to new regulations throughout the European game such as Financial Fair Play which aims to alleviate the debt problem across professional football and encourage clubs to spend within their means.

The thesis concluded a number of findings in relation to English professional football clubs since 1992. First, there has been a move towards utility maximisation among English clubs. Second, the foreign ownership model has led to an improvement in sporting performance and a decline in financial performance. Third, there is evidence to suggest that there has been a relationship between rising revenues and rising costs in English football during the last twenty years and that this shows no signs of abating.

The central contribution to knowledge of this thesis is the production of the model. The model highlights, for the first time, the relationship between variables. The thesis also provides a contribution to knowledge when analysing the performance of clubs in the English football industry since the formation of the English Premier League in 1992. A further contribution is the potential application of the model to other professional team leagues and sports both in the UK and overseas. Such a model can be used by professional sports clubs, academics and practitioners alike to ascertain how a given club is performing in relation to its closest competitors. The model can also be used by governing bodies to inform and implement changes at policy level. Furthermore, the model and its uses are not exclusively limited to the UK given the Eurocentric nature of the work.

Publications and Conferences

The author has developed an interest in this topic over recent years and has developed a research portfolio in the area. This stemmed from focusing on the financial performance and sporting performance of foreign-owned clubs compared with domestically owned clubs to considering the impact of ownership structure on club performance in the English Premier League (EPL). Subsequently, this led to the focus being on which variables were being used to conduct analysis and if these were a true reflection of performance. This thesis builds on the research portfolio built up in this area by the author by creating new approaches to performance measurement. A list of the peer reviewed journal articles and conference outputs by the author in this area are provided below:

Journal publications

FLINT, Stuart William, PLUMLEY, Daniel and WILSON, Robert (2014). You don't know what you're doing! The impact of managerial change on club performance in the English Premier League. *Managing Leisure*. **19** (6), 390-399.

PLUMLEY, Daniel, RAMCHANDANI, Girish, and WILSON, Robert (in press). Towards a model for measuring holistic performance of professional football clubs. *Soccer and Society*.

WILSON, Robert, PLUMLEY, Daniel and RAMCHANDANI, Girish (2013). The relationship between ownership structure and club performance in the English Premier League. *Sport business and management: an international journal*, **3** (1), 19-36.

Conference outputs

PLUMLEY, Daniel and WILSON, Robert (2014). *The English Premier League at 20; economic crisis or financial power?* 22nd Conference of the European Association for Sport Management. Coventry, England.

PLUMLEY, Daniel and WILSON, Robert (2013). *Establishing a model to measure financial and sporting performance in professional team sports (football).* 21st Conference of the European Association for Sport Management. Istanbul, Turkey.

WILSON, Robert and PLUMLEY, Daniel (2013). *The utilisation of a model to examine financial and sporting performance in the English premier league (EPL) since its inception in 1992.* 21st Conference of the European Association for Sport Management. Istanbul, Turkey.

PLUMLEY, Daniel and WILSON, Robert (2012). *Where next for FFP? Towards a model for measuring financial performance and financial sustainability in the English Premier League*. 20th Conference of the European Association for Sport Management. Aalborg, Denmark.

WILSON, Robert and PLUMLEY, Daniel (2012). *Problems Ahead? UEFA Financial Fair Play and the English Premier League*. 20th Conference of the European Association for Sport Management. Aalborg, Denmark.

WILSON, Robert and PLUMLEY, Daniel (2011). *Ownership Structure and Financial Crisis in the English Premier League*. 19th Conference of the European Association for Sport Management. Madrid, Spain.

WILSON, Robert and PLUMLEY, Daniel (2010). *The Premier League of Nations; Foreign owned or English owned, does it really make that much financial difference?* 18th Conference of the European Association for Sport Management. Prague, Czech Republic.

WILSON, Robert and PLUMLEY, Daniel (2009). *Is Foreign Investment in English Football really worth it?* 17th Conference of the European Association for Sport Management. Amsterdam, Holland.

Candidate's Statement

I declare that the contents of this thesis are my own work and that all other material consulted throughout the production of the thesis has been cited and referred to in the correct and appropriate manner.

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List of Abbreviations

The thesis uses a number of abbreviations which are outlined below in alphabetical order along with their full title.

AHP - Analytical Hierarchical Performance

ASB - Accounting Standards Board

CA - Chartered Accountant

CCCG - Combined Code of Corporate Governance

CPA - Certified Public Accountant

DEA - Data Envelopment Analysis

DMU - Decision Making Unit

EPL - English Premier League

ESL - European Super League

EVA - Economic Value Added

ExPAM - Exploratory Performance Assessment Model

FA - Football Association

FASB - Financial Accounting Standards Board

FFP - Financial Fair Play

FOrNeX - Football Organisation Nexus Index

FRS - Financial Reporting Standard

FVA - Fair Value Accounting

GAAP - Generally Accepted Accounting Principles

HCA - Historical Cost Accounting

IASB - International Accounting Standards Board

IASC - International Accounting Standards Committee

ICAEW - Institute of Chartered Accountants in England and Wales

IFRS - International Financial Reporting Standards

ITV - Independent Television

IVSC - International Valuation Standards Council

KMO - Kaiser-Meyer-Olkin Measure of Sampling Adequacy

KPI - Key Performance Indicator

MLB - Major League Baseball

MVA - Market Value Added

NBA - National Basketball Association

NFL - National Football League

NHL - National Hockey League

OLS - Ordinary Least Squares

OPS - Overall Performance Score

PAM - Performance Assessment Model

PTE - Pure Technical Efficiency

RBV - Resource Based View

ROCE - Return on Capital Employed

SCMP - Salary Cost Management Protocol

SFAS - Statement of Financial Accounting Standards

SSAP - Statement of Standard Accounting Practice

TE - Technical Efficiency

UEFA - Union of European Football Associations

UK - United Kingdom

US - United States

1.1 Context and Rationale

During the last century, football has evolved from a noble sport - played for reasons of entertainment - to a business. The globalisation phenomenon has accelerated the development of the football industry, by reducing the differences between countries and emphasising the connections between them (Oprean and Oprisor, 2013). Nowadays, within football, exists multinational football squads, live television broadcasts for international fixtures, swaps between team management styles from different football cultures, direct foreign investments in football clubs, increasing number of international fixtures and the transformation of events such as the World Cup, the European Football Championship and the Copa America into real money-making machines, with a major impact on a macroeconomic level (Oprean and Oprisor, 2013). Owing to the development of football as an industry, commentary on the financial elements of the game have increased in recent years, particularly in the European game where substantial increases in revenue have been well documented in recent years. Indeed, the European football market continues to show resistance to wider economic pressures, growing by 2% to €19.9 billion in 2012/13 (Deloitte, 2014). However, in light of such economic pressures, Drut and Raballand (2012) state that debt accumulation of European football clubs is becoming an increasing source of concern for football authorities as costs continue to rise in line with increases in revenues.

The most recent set of figures available at the time of writing indicate that the 'big five' (the English Premier League in England, the Bundesliga in Germany, La Liga in Spain, Serie A in Italy and Ligue 1 in France) leagues' revenues grew to €9.8 billion in 2012/13, with all five leagues experiencing growth (Deloitte, 2014). Of these five leagues, the English Premier League (EPL) is currently the highest revenue-generating league (€2.9 billion in 2012/13). This figure is almost €1 billion more than the next best revenue-generating league in Europe (the Bundesliga in Germany). Furthermore, England's Football League Championship (the league below the EPL) is positioned eighth in Europe, behind only the 'big 5', Russia and Turkey with total revenues of €508m (Deloitte, 2014). Moreover, the EPL has a greater reach into the global market than any other European league. EPL domestic broadcasting rights contracts will generate around £3.4 billion over the three seasons from 2013/14 (an increase of around 60% on the previous cycle) whilst overseas broadcast rights covering over 200 countries will generate £2.2 billion during the same period (an increase of over 50% on the previous cycle) (Deloitte, 2014).

As a result, academics within the sport management field have analysed the financial performance of professional football clubs more frequently during the last decade and the academic literature surrounding the subject has grown substantially during this time. Academics have begun to research football as a 'business' and the way in which football clubs manage and control their finances. Furthermore, the commercial opportunities linked to professional sport have increased dramatically over the last two decades; football is now recognised as a global game and is consistently analysed from an international perspective.

As such, research monographs are now dedicated to the subject (see Conn, 2000; Dobson and Goddard, 2001 and 2011; Downward and Dawson, 2000; Hamil and Chadwick, 2010; Kesenne, 2014; Morrow, 2003; Szymanski and Kuypers, 1999). Some of the more recent publications (e.g. Hamil and Chadwick, 2010), focus directly on the aforementioned 'international perspective' and there has been progression within the literature in relation to the earlier publications around the turn of the millennium that were more focused on the domestic football picture and used English examples for the most part. Furthermore, the financial performance of football clubs across Europe has been scrutinised in a number of peer reviewed journal articles (see Andreff, 2007; Ascari and Gagnepain, 2007; Barros, 2006; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010; Wilson, Plumley and Ramchandani, 2013). It is within these journal articles that the imbalance between revenues and costs in the top European leagues, namely England, Spain, Germany, Italy and France, is outlined and the principal argument of a number of these papers is that there is a clear imbalance between revenues and costs in European football clubs.

The link between football and finance has been discussed more frequently in recent years as the two play a role in effecting the essential element of the game; winning a football match on the pitch in order to gain points to move further up the league table. The link between financial performance and sporting performance is inextricable because one relies on the other to function. Football clubs, when analysed superficially, need money to pay players' wages and to buy better players in order to improve on-pitch performance. They do this, largely, by selling the on-pitch product to fans that pay money to watch the games. Consequently, there have been arguments in the literature that the on-pitch performance of a club is directly related to its financial performance, although there is no apparent consensus as to which one is the cause and which one is the effect. For example, does having better financial performance lead to better on-pitch performance or does producing better performances on the pitch lead to better financial performance? Szymanski and Kuypers (1999) were two of the first academics to cover the importance of this topic stating that the relationship between playing success is pivotal to interpreting the performance of football clubs as businesses. Owing to the fact that there is currently no general consensus on whether financial performance drives sporting performance or vice versa, this thesis further investigates the relationship between financial and sporting performance by identifying and analysing the main key performance indicators for professional football clubs in an attempt to analyse how clubs are performing both on and off the pitch.

The thesis focuses exclusively on the EPL and clubs that operate within the English football industry. It is acknowledged that the EPL has previously been explored in this context in numerous research papers (e.g. Hamil and Walters, 2010; Guzman and Morrow, 2007). However, the focus on the EPL is justified for a number of reasons. The EPL is currently the highest revenue-generating league in European football and as such is at the forefront of current debate within the industry. Furthermore, the thesis is Eurocentric in nature, with comparisons being made in the literature across different European leagues throughout the thesis. Subsequently, it makes sense to focus the application of a new model on the highest revenue-generating league in European football as this will allow the results and discussion to inform the top end of the industry. In addition to this, the generally accepted accounting principles (discussed in chapter 2) are enforced within a single country and accounting regulations will differ across Europe. To this end, it would be difficult to compare clubs in another country with clubs in England and consistency was deemed to be achieved by focusing exclusively on one league in one country. Furthermore, access to financial information is inherently easier to obtain within the country that the thesis is being conducted in. It would have been difficult, for example, to obtain detailed financial information of other football clubs outside of the UK without access to any funding grants to secure the resources.

Despite the progressive transformation that football has undertaken in recent years, the reported imbalance between revenues and costs in the European leagues provide part of the rationale for this thesis. For example, despite the fact that revenues continue to increase in the major leagues and major clubs across Europe there is a substantial issue with debt in the professional game. In relation to the EPL, despite thirteen clubs recording an operating profit (Deloitte, 2014), EPL clubs' net debt at summer 2013 stood at £2.5 billion, almost as much as the league itself generated in revenue during the same time period. Furthermore, there have been numerous cases of clubs being reportedly hours away from liquidation in recent years (such as Coventry City, Leeds United and Sheffield Wednesday) and in 2010 Portsmouth became the first club in the EPL to enter administration (they have subsequently been relegated three times and will begin the 2014/15 season competing in the fourth, and lowest, tier of the English football league).

Consequently, both the Union of European Football Associations (UEFA) and the EPL have signalled their intent to combat the levels of debt in the professional game with the introduction of new regulations that will attempt to introduce a more prudent approach to financial management. UEFA have introduced regulations titled 'Financial Fair Play' (FFP) which aim to help clubs to alleviate debt and spend within their means. Clubs that do not conform to the new regulations will not be given a renewed UEFA licence and will be ineligible to enter into European competition - a potentially lucrative revenue stream. The concept of FFP and its implications are discussed further in the literature review (see section 4.7; p.108).

1.2 Purpose of the Thesis

The main purpose of the thesis was to combine, in a new way, variables of financial and sporting performance to provide a new measure of overall performance. Recent literature has previously established that the areas of financial and sporting performance are linked but there is no consensus on which one is the cause and which one is the effect. Furthermore, it appears that there is currently no established consensus as to how financial and sporting performance can be combined to produce an overall measure of performance. Many research monographs outline the issue (e.g. Szymanski and Kuypers, 1999) but there is no justified overall method as to the choice of variables used to examine the different elements. As such, the purpose of this thesis is not to investigate or establish a relationship between financial and sporting performance per se, which might provide some means of predicting performance, but rather to produce a model that combines variables into a new holistic measure of performance. A further purpose of the thesis was to analyse the performance of professional football clubs with reference to the arguments put forward in recent literature documenting the increasing imbalances between rising revenues and rising costs throughout the European game (e.g. Andreff, 2007).

A study by Kulikova and Goshuniva (2013) analysed the modern approaches that have been used to measure efficiency of professional football clubs and found that all methods used to analyse efficiency can be broadly broken down into two groups which are parametric and non-parametric. These methods were further analysed by Kulikova and Goshuniva to consider the efficiency measures in terms of sporting results and efficiency measures in terms of business performance. For the majority of studies on professional football, clubs were analysed through a number of similar indicators such as league points and wins for sporting performance and total revenue, sales and operating profit for business performance (Kulikova and Goshuniva, 2013). However, whilst these two authors concluded by stating the most popular factors used to measure efficiency, there was no mention as to whether the right variables were being used and whether the selection of variables was anything more scientific than the selection of variables by each author.

Subsequently, the main contribution to knowledge of this thesis is through combining variables in a new way to provide a holistic measure of performance. Previous studies have selected variables on a haphazard basis and this thesis provides progression in this area by combining variables scientifically to provide a new model that measures holistic performance. Such a model has implications for the management of football clubs and the need for clubs to maintain optimal performance both on and off the pitch, Furthermore, the model is useful for governing bodies (e.g. the Football Association (FA) and UEFA) and can be used to guide policy decisions in line with current regulations. The aim and objectives of the thesis are listed below before the structure of the thesis is outlined, detailing the steps undertaken in the completion of the research study.

1.3 Aim and Objectives

1.3.1 Aim

- To devise and test a performance analysis model that incorporates both financial and sporting variables with the application of weighting factors that can be used to measure the performance of teams in the English Premier League.

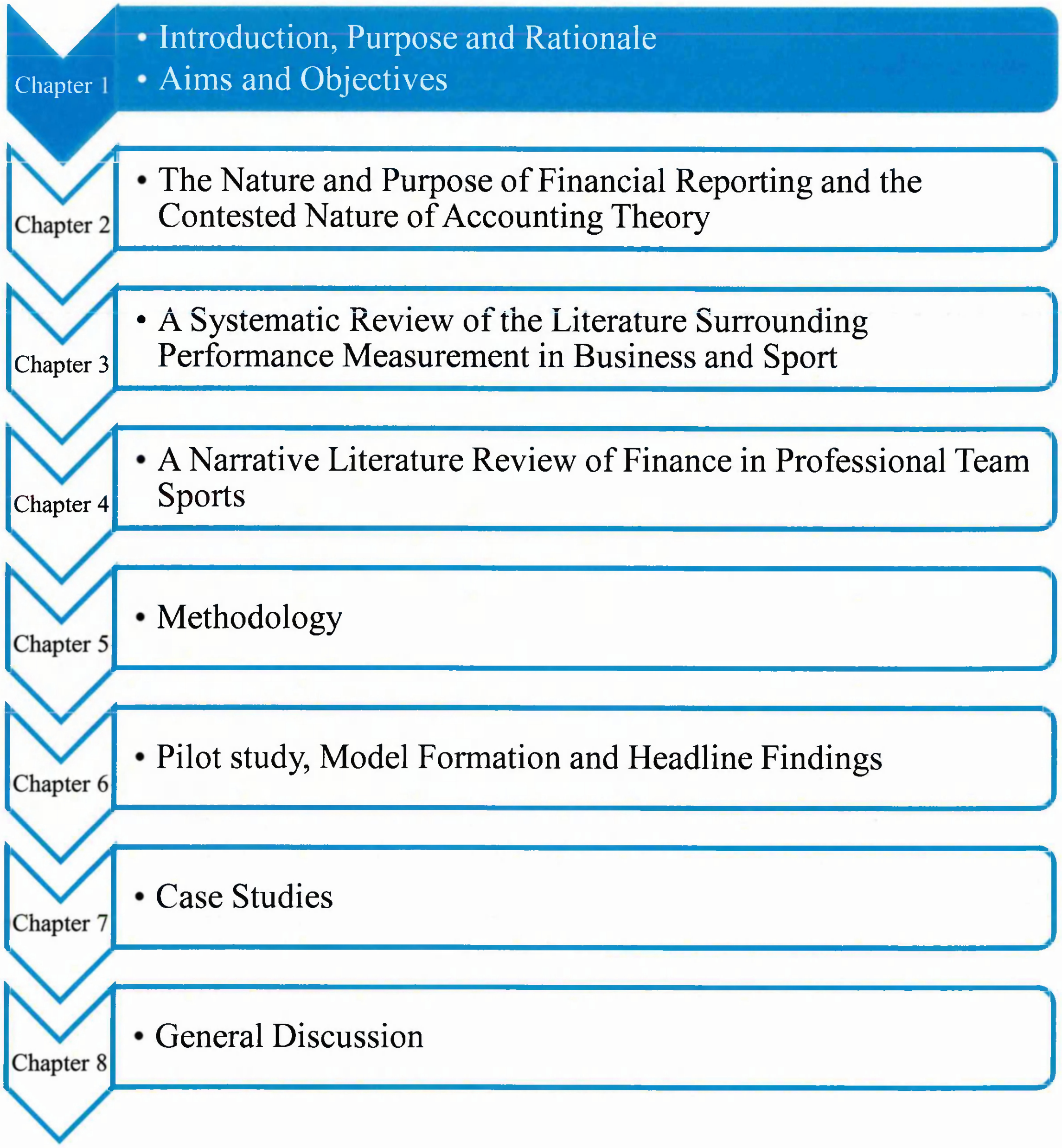
1.3.2 Objectives

- To use the English professional football industry as a pilot for the derivation of a model.

- To produce a set of measurement variables that incorporate both financial and sporting factors that have been determined through rigorous scientific processes.
- To measure holistic performance within the English football industry by ranking clubs against each other to highlight which clubs perform better than others when tested within the model.
- To analyse the performance of clubs in the English football industry against the arguments present in the literature through a number of case studies.

When analysing the financial performance of a business or commercial entity the most logical place to start is by obtaining the financial accounts of that business. Not only is this considered to be the most effective technique when analysing financial performance, it is also one of the most easily accessible. Football clubs (and other clubs in other team sports) must publish annual accounts which are available for inspection in the public domain. Szymanski and Kuypers (1999) also point out that the added advantage of studying football clubs is that the data on their performance, productivity and achievements are both measurable and readily available. This makes it possible to interpret the financial data in relation to the performance of clubs. With reference to financial performance, there are regulations in place that dictate how financial information is documented and distributed to the appropriate users. The accounting regulations subsequently provide the conceptual framework for this thesis. A thesis '*Road Map*' is presented in figure 1 to chart the progression of the thesis. The chapter highlighted in blue reflects the chapter that the reader is currently referring to.

Figure 1: Road map of the thesis



1.4 Overview of the Thesis

The structure of this programme of research consists of eight chapters, including a pilot study, to determine the formation of model to measure the performance of professional football clubs. The thesis then tests this model against a longitudinal dataset to measure the performance of professional football clubs in the EPL since the formation of the league in 1992. Chapter 1 has presented an introduction to the research study including its context and rationale. Chapter 2 details the theoretical underpinning of the thesis and presents a review of the literature surrounding financial reporting and the contested nature of accounting theory. Chapter 3 presents a systematic review of the literature surrounding performance measurement in business and sport before chapter 4 reviews the narrative literature regarding financial and sporting performance in English professional. The three literature chapters allowed for the formulation of the aim and objectives of the thesis outlined in section 1.3 (p.6). Chapter 5 reports on the research methodology and the results are presented in Chapters 6 and 7. Chapter 6 details the pilot study, formation of the model and the headline findings from the main dataset which analyses the performance of 21 football clubs since the formation of the EPL in 1992. Chapter 7 outlines a number of different case studies that further analyse the results with reference to the findings of the literature review. Chapter 8 provides a discussion of the overall research programme, including the main advancements in theoretical knowledge made by the thesis, the strengths and limitations of the thesis and future research direction. The overall contribution to knowledge of the thesis is discussed as part of this concluding chapter.

CHAPTER TWO

THE NATURE AND PURPOSE OF FINANCIAL REPORTING AND THE CONTESTED NATURE OF ACCOUNTING THEORY

Chapter 1	• Introduction, Purpose and Rationale • Aims and Objectives
Chapter 2	**• The Nature and Purpose of Financial Reporting and the Contested Nature of Accounting Theory**
Chapter 3	• A Systematic Review of the Literature Surrounding Performance Measurement in Business and Sport
Chapter 4	• A Narrative Literature Review of Finance in Professional Team Sports
Chapter 5	• Methodology
Chapter 6	• Pilot study, Model Formation and Headline Findings
Chapter 7	• Case Studies
Chapter 8	• General Discussion

This chapter discusses the nature and purpose of financial reporting and the contested nature of accounting theory. Both of these areas have attracted considerable interest in the academic field throughout history and this chapter discusses these areas with reference to the academic literature written on the subject. Some of the academic material covered in this chapter also bears reference to the regulators and governing bodies of accounting and accountancy.

2.1 Accounting Principles and the Quest for a Conceptual Framework

The field of accountancy and the term "accounting" can be defined as a profession. Whilst the word accounting, in its simplest form is defined as "the process of recording, summarising, communicating and analysing the financial transactions of a business" (Johal and Vickerstaff, 2012: 2), a further explanation of advanced accounting cites that it is handled by qualified accountants who possess designations such as CPA (Certified Public Accountant) in the United States (US), or CA (Chartered Accountant) in Canada and the United Kingdom (UK). All accounting designations are the culmination of years of study and rigorous examinations, combined with a minimum number of years of practical accounting experience. There are regulatory bodies that set accounting standards and the people that work for these regulatory bodies are accountants themselves with recognised professional qualifications. In terms of the profession of accounting, there are basic accounting principles that have been followed by accountants for many years and were well understood and accepted by practising accountants. In summary, the major principles applied by accountants historically were:

- prudence;
- accruals;
- going concern;
- consistency;
- substance over form, and
- separate determination.

The principles above were originally set out in Statement of Standard Accounting Practice (SSAP) 2 *Disclosure of Accounting Policies* and in the Companies Act (1985). However, Financial Reporting Standard (FRS) 18 *Accounting Policies* has since replaced SSAP 2. Financial Reporting Standard 18 *Accounting Policies* has been mandatory since 2001 (Chopping, 2010) and sets out the principles to be followed in selecting accounting policies and the disclosures needed to help users to understand the accounting policies adopted and how they have been applied (Accounting Standards Board, 2000). FRS 18 in particular defines accounting policies and estimation techniques used in implementing those policies which should also be consistent with accounting standards. A business must also consider the appropriateness of accounting policies to its particular circumstances against the objectives of relevance, reliability, comparability and understandability. The objective of FRS 18 is that all material items are categorised and conform with giving a true and fair view, that the policies adopted are reviewed regularly to ensure they remain appropriate and that the financial statements and the information disclosed enables users to understand the accounting policies adopted and how they have been implemented (Accounting Standards Board, 2000). Accounting policies are concerned with;

i) Recognising,

ii) Selecting measurement bases for, and

iii) Presenting assets, liabilities, gains, losses and changes to shareholders' funds.

The accounting policies do not include estimation techniques but such techniques are documented within FRS 18 to implement the measurement aspects of accounting policies. Estimation techniques include methods of depreciation and estimating the proportion of trade debts that will not be recovered whilst measurement bases can be adopted to accommodate historical cost systems (Accounting Standards Board, 2000). Put simply, accounting policies determine which facts about a business are to be presented in financial statements, and how those facts are to be presented whilst estimation techniques are used to establish what those facts are. Within FRS 18 are two concepts which have a particularly prominent role in this particular standard. These are the concepts of going concern and accruals, defined in FRS 18 below;

> "The going concern assumption determines the perspective from which the objectives and constraints set out in the FRS should be viewed, particularly with regard to measurement. The accruals concept lies at the heart of the definitions of assets, liabilities, gains and losses and changes to shareholders' funds and both notions play an important role in the recognition of those items" (ASB, 2000; 60).

Chopping (2010) appears highly critical of FRS 18 and the concept of going concern and states that FRS 18 continues to differ from the *Statement of Principles* making no attempt to provide anything approaching a theory of accounting and is solely intended to provide guidance on some basic ideas that should be used in preparation of financial statements. Furthermore, the standard itself makes little attempt to justify the use of these concepts and that in direct relation to going concern there is no strict definition offered, nor does it address this issue in terms of concepts or principles (Chopping, 2010). International Generally Accepted Accounting Principles (GAAP) (2005) also outlines that there is no guidance in the standard concerning what impact there should be on the financial statements if it is determined that the going concern basis is not appropriate and that, accordingly, entities will need to consider carefully their individual circumstances to arrive at an appropriate basis. This argument is mirrored in the literature relating to this topic. Indeed, the going concern assumption is one of the most difficult and complex decisions faced by the auditing profession (Louwers, 1998). Despite such difficulties, it is one of the most important accounting concepts as all entities must fulfil the going concern assumption to remain in business. As such, it is fundamental in historical basis accrual accounting systems. Operationally, the going concern assumption means that an entity is expected to continue in operation for the foreseeable future and will be able to realise assets and discharge liabilities in the normal course of business (Martin, 2000).

A number of studies have attempted to evaluate going concern by using multi-discriminant analysis to analyse the assessment of business entities as going concerns (see for example Altman and McGough, 1974; Koh and Killough, 1990; Mutchler, 1985; Zmijewski, 1984) and more recently data mining techniques (applying neural networks and decision tree analysis) to predict going concern (see for example Koh and Low, 2004; Martens, Bruynseels, Baesens, Willekens and Vanthienen, 2008). Whilst a detailed review of these papers is beyond the scope of this chapter, and indeed the thesis, there is one further paper that does relate to the importance of accounting policies and the principle of going concern. Kleinman and Anandarajan (1999) analysed the usefulness of off-balance sheet variables as predictors of auditors' going concern opinions and their findings are particularly insightful as the approval of going concern still rests with the auditor who will base decisions on a number of pieces of qualitative information despite what the financial data suggests. For example, a company can have extremely poor financial performance in relation to absolute figures and ratios but may still have the ability to generate significant revenue or may be in a period or debt restructuring which allows it to fulfil the going concern opinion. An example such as this reflects the subjectivity involved in accounting theory and practice despite it being a recognised profession with professional governing bodies. The rest of the chapter will now explore some of the issues present in accounting with reference to the basics of accounting policies and providing a true and fair view. Firstly, it is important to note that from a sporting perspective, literature written directly in relation to accounting policies and professional sport remains rare. However, the fact remains that any changes to accounting policies and the regulatory framework will directly impact on the business performance of professional team sports. Indeed, in the UK, all companies, including professional sports teams, are required to produce financial statements consistent with the regulatory framework in place. However, there has previously been, and still remains, problems with the way in which financial performance is reported in professional team sports which is linked to the inconsistencies in accounting policies and the contested nature of the framework that will be discussed in this chapter. By way an example, there is an interesting quote by a former president of the Major League Baseball (MLB) team Toronto Blue Jays:

> "Under generally accepted accounting principles I can turn a $4million profit into a $2million loss, and I can get every national accounting firm to agree with me"(Howard and Crompton, 2002: 150).

It must also be noted that this is not an isolated case and that it is also not a scenario that is exclusively confined to professional team sports. Indeed, the true and fair view concept that has been the over-riding requirement in the UK since 1947 was partly formulated following the 'Royal Mail Steam Packet Company' case (Hastings 1962; cited in Alexander, 1999). In this scenario, the published accounts for Royal Mail in 1926 showed a profit of £430,000. The internal accounts for the same year showed a loss of around £300,000 and the difference was achieved by crediting the profit and loss balance with £750,000 out of secret tax reserves (published accounts at this time did not prescribe a profit and loss account). In this instance, the auditor (and the chairman) was accused of producing a fraudulent balance sheet (Alexander, 1999). In response to this, the auditor's line of defence was simple:

> "The defence must necessarily turn upon the one question, whether or not the words used by (the auditor) were well recognised in accountancy circles and were sufficient to give notice of the manner in which the trading loss had been turned into an apparent profit. Whether or not this accountancy practice was to

> be commended was, in our view, wholly immaterial. The charge we had to meet was a charge of dishonesty, and if it could be shown that (the auditor) had merely adopted the customary practice, it would be very difficult to accuse him of dishonesty" (Hastings, 1962: cited in Alexander, 1999: 242).

Subsequently, the auditor was found not guilty as expert accounting witnesses testified that, at the time, such wording was customary practice (Alexander, 1999) and the wording of the quote is very similar to the Zimbalist example of the MLB team. As such, the inconsistencies surrounding accounting frameworks and concepts are laid bare here in two examples that are many years apart in terms of time proving that very little has changed in the sense that the nature of financial reporting is still widely contested.

With reference to the sporting example, many of the creative accounting examples have been linked to the valuation of player contracts. It is around this subject where most of the literature lies in relation to accounting policies and professional team sports (see for example, Amir and Livne, 2005; Forker, 2005; Morrow, 2006; Pavlovic, Milacic and Ljumovic, 2014; Rowbottom, 2002). A number of these papers are discussed in more detail in the ensuing literature review chapter (see section 3.3.1; p.50) but it is clear that the introduction of FRS 10 - Goodwill and Intangible Assets - in 1998 has since become one of the single most important changes to the world of sport business as it meant that the capitalization of transfer fees is now mandatory for English football clubs. Previously, some clubs began to develop ways of including the costs and purchases of players without valuing them on the balance sheet, despite the fact that they were valuable assets, though this was done internally and without direction from the Accounting Standards Board (ASB). The introduction of FRS 10 provided consistency in the area of intangible assets and comparisons between the financial results of professional sports teams can be now be undertaken with greater confidence (Wilson, 2011).

It is also important to note, however, that the same inconsistencies found in the setting of accounting standards is also true for the discussion around FRS 10 and valuing the contracts of football players. Indeed, Pavlovic, Milacic and Ljumovic (2014) conclude their paper by stating that controversies surrounding the accounting treatment of the transfer fee are the consequence of numerous uncertainties that are present in the football industry. These include uncertainties as to whether or not a player will be alienated before the end of the contract, what his sell-on transfer fee would be, and whether the player makes a contribution to the sporting and financial results and/or success of the club. As a result of these uncertainties, Pavlovic, Milacic and Ljumovic (2014) argue that all accounting policies therefore have their weaknesses.

One of the ways in which the regulators have tried to resolve some of the weaknesses is through the production of an agreed conceptual framework. However, this framework has also been critiqued within the literature surrounding this topic. International GAAP (2005) state that, in general terms, a conceptual framework is a statement of generally accepted theoretical principles which form the frame of reference for a particular field of enquiry. In terms of financial reporting, these theoretical principles provide the basis for both the development of new reporting practices and the evaluation of existing ones. Since the emphasis of financial reporting is on the provision of information that is useful in making business and economic decisions, a conceptual framework will form the theoretical basis for determining which events should be accounted for, how they should be measured and how they should be communicated to the user. Therefore, a conceptual framework for financial reporting must be substantially practical in its application (International GAAP, 2005). CIMA (1999) also provides a definition of what a conceptual framework is;

> "A conceptual framework is a constitution, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function and limits of financial accounting and statements."(CIMA, 1999: 585).

However, the concept of a conceptual framework has also been contested in the literature surrounding this topic. In one early paper, Hines (1991) labels the Financial Accounting Standards Board (FASB's) conceptual framework as a 'functional failure'. The work of Hines (1991) suggests that the reason for the problems encountered by the FASB in its conceptual framework project (and those encountered in other conceptual framework projects), is that the FASB conceptual framework is elaborated around a highly problematic conception of the relationship between financial accounting and economic reality. The view of Hines that the meaning and significance of conceptual framework projects is not so much functional and technical, but rather social and cultural is shared by a number of other authors (see for example, Boland, 1989; Burrell, 1987; Hopwood, 1990; Miller and O'Leary, 1987; Richardson, 1987; Tinker, 1988; Willmott, 1986). All of these authors argue that financial accounting practices are implicated in the construction and reproduction of the social world. Furthermore, it would seem to follow, that conceptual framework projects similarly play a part in the process of the social construction of reality (see for example, Booth and Cocks, 1989; Hines, 1989).

By way of an example to illustrate this relationship between financial accounting and economic reality, it is worth considering the objectives of financial reporting as defined within the conceptual framework. As previously stated, the conceptual framework states that the principal objective of financial accounting is to provide useful information for decision making. Furthermore, the framework provides useful information that is relevant and reliable, and such reliability embraces representational faithfulness, verifiability and neutrality (Hines, 1991). It is argued, by Hines (1991), that the ontological assumption underpinning the conceptual framework is that the relationship between financial accounting and economic reality is a unidirectional, *reflecting or faithfully reproducing* relationship. That is, economic reality exists objectively, intersubjectively, concretely and independently of financial accounting practices and financial accounting *reflects, mirrors, represents, or measures* this pre-existent reality (Hines, 1991). One of the main arguments here is that accounts, and the numbers contained within them, can be arithmetically manipulated.

Indeed, this is one of the main concerns discussed in many papers that discuss the legitimacy of financial reporting. Suchman (1995), for example, discusses legitimacy in the context of organisational legitimacy, rather than practices. Suchman argues that the capacity of accounting practices to link social values to economic actions makes those actions legitimate (Richardson, 1987) and thus confirms legitimacy on organisations within which values are enacted. In this sense, the questions underlying the acceptance of fair value accounting or any other single basis as *the principle basis* for financial reporting is not just whether fair value has legitimacy as a practice but who and what is legitimised in this process (Mitchell, Agle and Wood, 1997). Following Suchman (1995), a practice may be seen to possess full legitimacy once it is institutionalised - taken for granted - which in Scott's (2008) term implies a high degree of cognitive cultural acceptance, where any other practice becomes 'literally unthinkable', the possibility of dissent submerged. Georgiou and Jack (2011) argue that no accounting basis has ever yet reached this level of cognitive legitimacy.

Power (2010) offers a similar thought in relation to the legitimacy of financial reporting. The sociology of reliability to emerge from these arguments suggests that subjectivity and uncertainty can be transformed into acceptable via strategies which appeal to broader values in the institutional environment which even opponents must accept. Accounting 'estimates' can acquire authority when they come to be embedded in taken for granted routines - hence the significance of the International Valuation Standards Council (IVSC) and similar bodies. So long as a sufficient consensus holds, and asset markets are orderly and generally liquid, then the circle which links models and markets is virtuous and broadly performative (Power, 2010). In this way fair values, for all their fictionality and apparent intellectual incoherence (Ravenscroft and Williams, 2009) could define what it is to be reliable at a point in time.

Elsewhere, Nobes (1998) expands on this argument and notes that previous writers have suggested a number of other reasons for international differences in financial reporting. Many of these factors appear to be vague but two factors do stand out as explanations for financial reporting differences across the world (Nobes and Roberts, 2000). These are colonial influences and corporate financing. Most countries exhibit accounting systems imposed by or copied from other influential countries. Thus, colonial or cultural influence overwhelms all other factors, sometimes leading to apparently inappropriate financial reporting (Nobes and Roberts, 2000). In a more recent paper, Nobes (2006) offers further comment on this when offering suggested reasons for the differences between the German and UK national 'accounting systems'. Nobes (2006) states that such differences may be attributed to differences in financing systems, legal systems and tax systems in Germany and the UK. Zysman (1983) proposes three types of financing system: capital market (e.g. UK, US), credit-based governmental (e.g. France and Japan), and credit-based financial institutional (e.g. Germany). Nobes (1988) proposes two types: shareholder 'outsiders' (e.g. UK, US) and bank/state/family 'insiders' (e.g. Germany, France). More recent research (e.g. Franks and Meyer, 2001) is consistent with a continued but less pronounced dichotomy. Nobes (1998) suggests that, unless a country is culturally dominated by another, its financing system is the main driver of its financial reporting system. Furthermore, there is now academic evidence to support this claim (see for example, Sellhorn and Gornik-Tomaszewski, 2005; Tarca, Moy and Morris, 2005; Xioa, Weetman and Sun, 2004). It is clear that there have been reservations, certainly in academic circles, surrounding the production of a conceptual framework for accounting. Of greater importance, however, is the discussion surrounding fair value accounting (FVA) which replaced historical cost accounting (HCA) in 2005.

2.2 On Truth and Fairness - Historical Cost Accounting versus Fair Value Accounting

An examination of the history of attempts by regulators, practitioners and scholars from the mid nineteenth century to 2005 to establish an appropriate accounting measurement basis for financial reporting here leads to an evaluation of the likelihood of FVA practices becoming fully institutionalised (Georgiou and Jack, 2011). Using concepts drawn from theories of legitimation, Georgiou and Jack (2011) argue that HCA only enjoyed an episodic legitimacy in the 1940s-70s and that prior to and after this period mixed measurement incorporating market values has become a routine accounting practice. Although principles of FVA have been legitimised to an extent, it is argued that this has resulted in the practice of mixed measurement bases being taken for granted (Georgiou and Jack, 2011).

International Financial Reporting Standards (IFRSs) have brought about a 'quiet revolution' in financial reporting, according to Peter Williams in a *Financial Director* article on Jan15, 2002. The conceptual underpinnings of the standards move accounting practice away from established concepts of historical cost and stewardship towards concepts of investor decisions based on future cash flows and fair values (Ball, 2006; Horton and Macve, 2000; Richard, 2004). Georgiou and Jack (2011) define three time periods for their historical overview of fair value accounting. The first period c.1850-1970, covers the development of standardised financial reports for external use in industrial and public service entities and ends just as the accounting standard boards were being established in the UK and the US. The period between 1970-1990 is the time when the theoretical concepts of financial reporting were tested through standard setting and the final period, 1990-2005, saw the consolidation of the work of the International Accounting Standards Committee (IASC) and its conceptual framework, and the perceived urgency of setting standards under pressure to deal with acquisitions, mergers and financial instruments (Georgiou and Jack, 2011). Further information about the remit of the IASC can be found in appendix 1. This next section discusses the arguments for and against FVA in relation to HCA that have been put forward in academic literature during the last twenty years or so with references to developments in two of the main countries at the time, the UK and the US.

An absolute requirement for HCA to be used as the basis for financial reporting came in only in the late 1930s in the US, a direct response to the crashes and depression of that period (Zeff, 2007). Before then, reporting by UK and US companies was characterised by the concept of 'reflecting the business' and prescriptive formats and methods through regulation were resisted. In effect, balance sheets were presented using some valuation basis for fixed assets and historic cost for current items although there is also evidence that historic cost was effectively the default position for most entities. Put this way, the use of mixed measurement incorporating market values maintained legitimacy for over a century until a new phase or episode occurred where historic cost and underpinning theories of valuation became more central in accounting practice (Georgiou and Jack, 2011).

Additionally, with specific reference to the UK picture, in 1952 the Institute of Chartered Accountants in England and Wales (ICAEW, 1952) declared that 'historical cost should continue to be the basis on which annual accounts should be prepared', which indicated that despite regulatory freedom and nineteenth century practices, on the whole accounts were being prepared on an historic cost basis (Georgiou and Jack, 2011). In the US, the key episode was the proscribing of any other method than historical cost in the period c.1940-1970, on the largely pragmatic and moral grounds of not allowing room for seriously misleading upward valuations, and the implications of that for preventing further financial crises (Georgiou and Jack, 2011).

The post 1970 period for accounting saw the introduction of the IASC (outlined previously) and the Trueblood committee in 1973 which led to the emergence of fair value in an era of regulative and conceptual developments. The conception and application of 'fair value' measurement within financial reporting has an ad-hoc history which reaches back at least two decades (Georgiou and Jack, 2008). The move towards fair value measurement is frequently characterised as a shift in paradigms (e.g. Barlev and Haddad, 2003, p.383). A paradigm can be defined as a set of values and beliefs shared by a specific community. Accordingly, with respect to financial reporting, a paradigm shall be defined as a set of shared beliefs on the objectives of financial reporting and on the accounting principles by which these can be achieved. It is grounded in elaborated assumptions, and characteristically requires a theoretical foundation or vindication. Once a financial reporting paradigm is adopted by regulatory bodies, it becomes the guiding principle for accounting regulation, that is, standard setting (Hitz, 2007).

Fair value accounting is, put simply, an income definition that anchors on changes in assets and liabilities rather than on the vague notion of 'nondistortion' (Bevis, 1965, p.104), which had increasingly been perceived as a pretext for discretionary definitions of balance sheet positions. Additionally, researchers and regulators felt uncomfortable with a balance sheet that had no informative purpose of its own (Hitz, 2007). A more detailed definition of fair value is outlined in the paper by Georgiou and Jack (2011). Fair value is variously defined in certain IFRS appendices as 'the amount for which an asset could be exchanged, a liability settled, or an equity instrument granted could be exchanged, between knowledgeable, willing parties in an arm's length transaction'. Fair value is defined by the Financial Accounting Standards Board (FASB) in SFAS 157 (FASB, 2006, para 5) as 'the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date', and the International Accounting Standards Board (IASB) uses this definition verbatim in its fair value measurement project (Georgiou and Jack, 2011). Although both have available market values, this introduces aspects of subjectivity, auditability, and accountability beyond those generally perceived to be problems with HCA (Bromwich, 2007; Penman, 2003; Rayman, 2006). Furthermore, the two definitions, as they currently stand, could lead to different measures of similar assets, depending on the interpretation of market participation and observable and unobservable data at the time of measurement (IASB-FASB, 2009).

There are many proponents of fair value accounting present in the literature. Penman (2007) for example, lists the following arguments for fair value accounting:

- Investors are concerned with value, not costs, so report fair values.
- With the passage of time, historical prices become irrelevant in assessing an entity's current financial position. Prices provide up-to-date information about the value of assets.
- Fair value accounting reports assets and liabilities in a way that an economist would look at them; fair values reflect true economic substance.
- Fair value accounting reports economic income: in accordance with the widely accepted Hicksian definition of income as a change in wealth, the change in fair value of net assets on the balance sheet yields income. Fair value accounting is a

solution to the accountant's problem of income measurement, and is to be preferred to the hundreds of rules underlying historical cost income.

- Fair value is a market-based measure that is not affected by factors specific to a particular entity; accordingly it represents an unbiased measurement that is consistent from period to period and across entities. (Source: Penman, 2007: 33).

Likewise, Barlev and Haddad (2003) champion the use of fair value accounting by stating some of the shortcomings of HCA. HCA-based financial statements obscure real financial position and the results of operations of a firm and provide ample room for manipulation. Often the historical book value of assets and liabilities has only remote association with market values. This situation permits management to manipulate reported earnings and to hide their lack of real accomplishment. FVA, in contrast to HCA, measures and discloses the current value of assets and liabilities and is more value relevant. Empirical evidence indicates that fair value rather than historical cost numbers are more highly associated with stock returns. The academic literature provides consistent evidence suggesting that fair values of certain financial instruments should be included in the balance sheet and that changes in the fair values of these instruments should be included in the income statement.

However, notwithstanding this, FVA also has its critics. Of greater importance is the fact that there are very few alternatives offered. Indeed, both Allen and Carletti (2008) and Plantin, Sapra and Shin (2008) provide important contributions to the FVA debate by illustrating potential contagion effects. However, they do not show that HCA would be preferable. In fact, Plantin, Sapra and Shin (2008) are quite explicit about the problems of HCA. This is a theme that runs throughout both accounting literature and accounting history. No one framework or policy has ever been definitively agreed on, even by standard setters themselves, and this has led to much debate within accounting circles. Indeed, it is argued that the concept of 'fair value' measurement emerged in financial accounting and was accepted in the abstract long before it was a subject of analysis and dispute (Bromwich, 2007). Furthermore, 'fair value' is not itself a single measurement methodology but encompasses a variety of approaches for the estimation of an exit value. Therefore, it is hardly surprising that many of the arguments which have been developed for and against the use of fair values in accounting are not well-supported by evidence (Laux and Leuz, 2009); disputants often talk past each other.

As suggested by Penman (2007) previously, proponents of fair values argue that it reflects current market conditions and therefore provides timely information, thus increasing transparency and encouraging prompt corrective actions. Few dispute that transparency is important but the view of opponents of FVA is that there remains controversy as to whether FVA is indeed helpful in providing transparency and whether it leads to undesirable actions on the part of banks and firms. Opponents argue that FVA is not relevant and potentially misleading for assets that are held for a long period and, in particular, to maturity; that prices could be distorted by market inefficiencies, investor irrationality or liquidity problems; that fair values based on models are not reliable; and that FVA contributes to the procyclicality of the financial system (Laux and Leuz, 2009).

Furthermore, Cairns (2006, p.19) argues that the use of fair value by the IASB is limited: "it is not true to say that IFRS require that all assets and liabilities should be measured at fair value. It is also far from true to say that IFRS require all financial assets and financial liabilities to be measured at fair value." There is an example from the professional team sport industry, namely from Italian professional football that captures the arguments for and against FVA and the implications it can have in a practical sense that is provided by Morrow (2006). Morrow (2006) investigates the effects of the so-called *salva calcio* decree, introduced by the Italian government. The decree effectively permitted clubs to amortise the asset of players' registration rights over an arbitrary time period of ten years rather than over the length of the players' contracts, thus improving clubs' reported financial position and performance (Morrow, 2006). It can also be argued that this decree does not fit directly with FVA or HCA; rather it adopts elements of both. It did not take into account current market values, as FVA would, nor does it base its valuations on the length of a player's contract, which is normally significantly shorter than the arbitrary ten year period used in the decree. Morrow (2006) noted that the decree had indirect economic consequences and that, in the wider picture of accounting, figures in financial statements were value-laden as opposed to being neutral.

The *salva calcio* decree is an illustration of accounting as a social and political practice, where implementation of a financial reporting regulation has prioritised certain political and social interests. In the case of Italian football, this was the interests of football club owners and their supporters. Morrow (2006) states that the decree was a means of helping achieve a particular social end; it made it easier to award licences to clubs, ensuring continued participation in Italian professional leagues in accordance with the going concern assumption. This outcome was deemed to be both in the public (social) and political interest (Morrow, 2006).

In the profession of accounting, the debate between FVA and HCA, it appears, is likely to be prolonged, as the unintended consequence of more firmly embedding an acceptance of the appropriateness of fair values for some balance sheet items has been to confer further pragmatic legitimation for mixed measurements in annual reports. It is possible that moral and cognitive arguments in favour of mixed measurement may emerge, or the debates on cost or value based accounting continue, as they have done for over a century. The emergence of new reporting forms should be carefully observed and recorded, as a basis for a longitudinal study of the diffusion of practice and processes of legitimacy (Georgiou and Jack, 2011).

Additionally, the recent financial crisis has also turned the spotlight on FVA (Laux and Leuz, 2009). Critics argue that FVA has significantly contributed to the financial crisis and exacerbated its severity for financial institutions around the world. On the other hand, proponents of FVA argue that it merely played the role of the proverbial messenger that is now being shot (e.g. Turner, 2008; Veron, 2008). The view of Laux and Leuz (2009) is that there are problems with both positions. FVA is neither responsible for the crisis nor is it merely a measurement system that reports asset values without having economic effects of its own. A similar argument is noted by Georgiou and Jack (2011) who state that recent controversies about the role of fair values emerged in the financial crisis of 2007 and the presentation of a mixed-attribute model for IFRS 9 make one wonder whether the 'full FVA ideology' held by some fair value proponents (Power, 2010) is gradually being abandoned and whether this implies the further acceptance of hybridisation for the future of financial reporting. Hybridisation, or mixed measurement as stated by Georgiou and Jack (2011), is a combination of elements of both FVA and HCA which adds further confusion to the already contested nature of financial reporting and accounting. An example of where such hybridisation has occurred is in the Italian football example regarding the *salva calcio* decree and Georgiou and Jack (2011) argue that the problem is not an isolated one, and that mixed measurement bases have become taken for granted post the introduction of FVA in the 1970s.

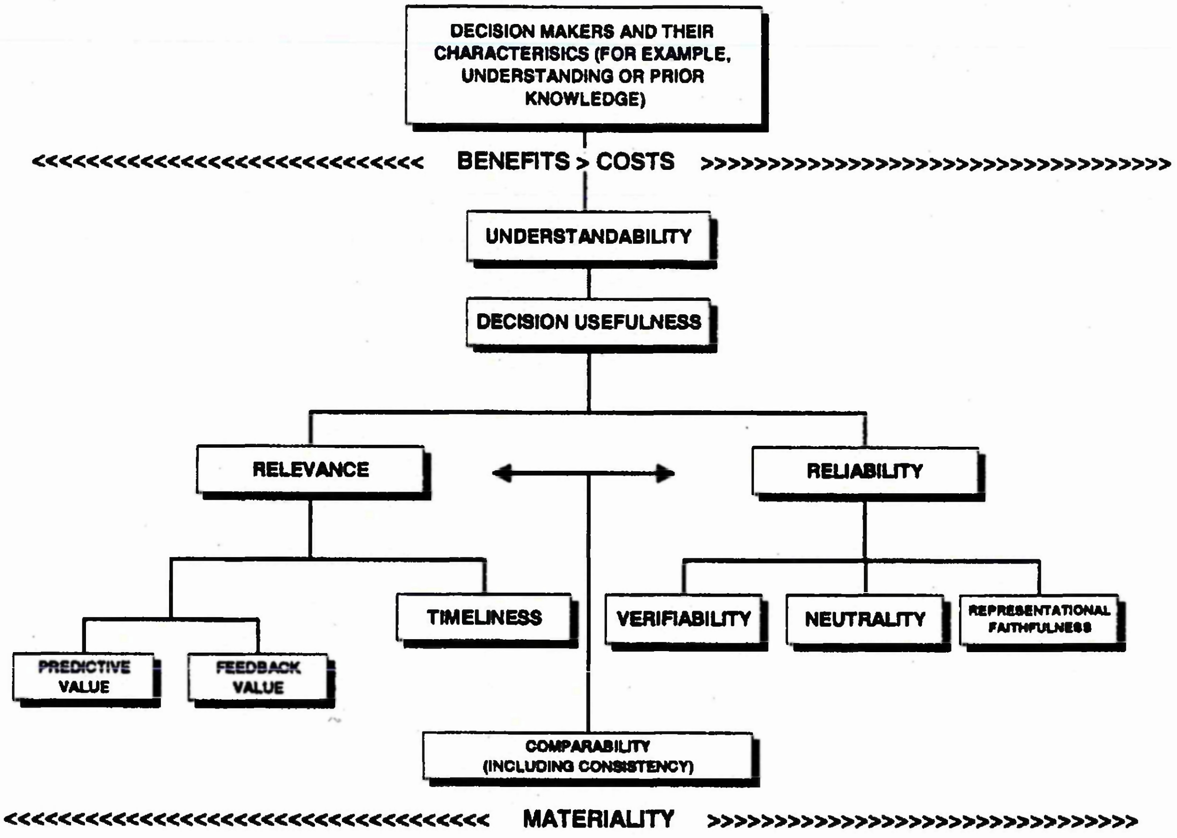
2.3 The Impact of Fair Value on the Qualitative Characteristics of Accounting Information

Barlev and Haddad (2003) view the development of FVA as a logical pattern and conclude that the process of adoption is a natural one reflecting trends of globalisation and international economic integration (see also Camfferman and Zeff, 2007). However, the underlying logic of fair value as giving a predictive nature to financial reports led to concerns about its use and reliability (Scott, 2002).

Reliability is one of the fundamental qualitative characteristics of accounting information as articulated in the early conceptual frameworks (FASB, 1980). It is also one of the main pillars in the hierarchy of accounting qualities outlined in figure 2 (this sub-section also refers to a number of other terms present in this hierarchy). Yet the reliability of accounting numbers is not a given: it is always founded on a consensus based on empirical rather than conceptual facts. The consensus is often implicit and taken for granted although it becomes more problematic at times of conflict and competition when questions of power and authority become visible. Ideas of accounting reliability may change over time, may have relative rather than absolute significance, and may only be grounded in the fiction of an ideal consensus among a community of reasonable measures (Ijiri and Jaedicke, 1966).

Figure 2 - A Hierarchy of Accounting Qualities

Figure 1: A Hierarchy of Accounting Qualities



(Sourced from International GAAP, 2005)

Barth (2007) challenges the transactionally based view of reliability by arguing that is no longer to be identified with verifiability but has to do essentially with faithful representation. Barth (2007) argues that just because an amount can be calculated precisely, it is not necessarily a faithful representation of the real-world economic phenomena it purports to represent. This statement, and others like it, constitutes a reframing of the concept of reliability, essentially collapsing reliability into relevance. Against a transactionally grounded conception of reliability involving audit trails linking accounting events to reporting, Barth's conception shifts the centre of gravity for thinking about reliability to markets and the values they produce (Power, 2010). Thus, it is purported that, deep down, the fair value debate seems to hinge on fundamentally different conceptions of the basis for reliability in accounting, making it less of a technical dispute and more one of the politics of acceptability (Power, 2010).

Through this reasoning, Power (2010) believes that the intellectual principles of fair value have been shaken, yet the absence of an obvious competitor means that these arguments cannot provide a decisive intervention and subsequent change at the policy level. The picture has been and remains complex (Power, 2010). This is also evident when considering the views of Barlev and Haddad (2003) when discussing the reliability and relevance of the previous HCA paradigm adopted in financial reporting. They argue that HCA is a source of irrelevant accounting data which obscure financial statements. If accountants also perceive this to be the case, they then prefer *reliability* to *relevance* and apply the convention of *conservatism*. One of the basic qualities of accounting information is that the concept of *reliability* rests on the concept of *representational faithfulness* and *verifiability* (FASB, 1980, para 58-90). *Representational faithfulness* in accounting means correspondence between book and economic value of assets and liabilities. Book value represents the initial economic value of transactions, but not their economic value at a later date (Barlev and Haddad, 2003). *Verifiability* means agreement among professional accountants in measuring the numbers that record the monetary values of actual transactions in a way that they can be 'substantially duplicate by independent measurers' (APB, 1970, para 90). *Conservatism* is another convention that is closely associated with HCA. With reference to the income statement, *conservatism* means 'anticipate no profits but anticipate all losses' (FASB, 1980, para 91-97). Barlev and Haddad (2003) conclude that much of the criticism of the HCA paradigm has been associated with its distortion of financial statements. Subsequently, the two key components of financial statements, the income statement and balance sheet, which in the double-entry model complement each other, may both become distorted under HCA. Thus, the HCA paradigm casts doubt on the value relevance and the usefulness of reported figures and turns financial statement analysis into a cumbersome and difficult task (Barlev and Haddad, 2003).

Accounting reliability is ultimately a matter of sufficiency of social consensus and powerful proponents of fair value have succeeded, at least for a while, in shifting the basis of that consensus from the legal reality of documented transactions to the financial reality of asset and liability values based on discounted estimates of future cash flows. There is an argument, however, that accounting will always be - whatever the extent of the use of fair values - an impure hybrid of elements within an institutionalised presentational frame. Notions of relevance and reliability, which may seem to be intuitive and commonsensical, in fact cannot be defined independently of this system of elements and are always subject to change (Power, 2010).

Closely linked to the principles of reliability and relevance is the concept of materiality. All three concepts are defined in terms of what influences or makes a difference to an investor or other decision-maker. The IASB states that information is material if its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements (IASB Framework). Materiality therefore relates to the significance of transactions, balances and errors contained in the financial statements. It defines the threshold after which financial information becomes relevant to the decision making needs of the users. Therefore, information contained in the financial statements must be complete in all material respects in order for them to present a true and fair view of the affairs of the entity. By way of a practical example consider a default by a customer who owes £1,000 to a company that has net assets worth £10m. Such a default would be immaterial to the financial statements of the company. However, if the amount of the default was around £2m, the information would have been material to the financial statements and the omission of which could cause users to make incorrect business decisions.

A further qualitative characteristic of accounting information is comparability. Cairns, Massoudi, Taplin and Tarca (2011) state that one of the primary aims of adoption of IFRS is to improve the international comparability of financial reporting. Comparability requires that, among other things, the measurement of the financial effect of like transactions and other events must be carried out in a consistent way for different entities (IASB Framework, para 39). Therefore, the IASB's objective is to require like transactions and events to be accounted for and reported in a similar way and unlike transactions and events to be accounted for and reported differently, both within an entity over time and among entities (Cairns et al., 2011). Cairns et al (2011) tested the extent to which fair value measurement has increased following IFRS adoption and whether fair value measurement has increased the comparability of financial statements between companies within each country and between companies in the UK and Australia in particular. They investigated 228 listed companies in total and the results suggested a conservative approach and/or lack of incentives to use fair value measurement for most companies (Cairns et al., 2011). This further confirms the notion that the effect of country differences in the application of IFRS has been raised as a possible impediment to successful IFRS adoption (see for example Ball, 2006; Ball, Robin and Wu, 2003). Nobes and Kvaal (2010) draw a similar conclusion from their research. They formally document that there are different national versions of IFRS practice. Related to this, Nobes and Kvaal (2010) show that companies not only have an opportunity to pursue pre-IFRS practices originating in their national GAAP, but also extensively use this opportunity. These findings are important for several reasons but most importantly, for financial statement users, they imply that full international comparability has not yet arrived (Nobes and Kvaal, 2010).

The argument that international comparability is yet to arrive is fortunate for academic accounting researchers as noted by Landsman (2007). The IASB and FASB continue to issues standards relating to fair value measurement, disclosure and recognition, providing ample opportunity for future research. It is clear that there is considerable debate surrounding accounting standards and standard-setters but it is evident that there is some form of general consensus that the information reported in financial statements should be useful for decision-makers.

2.4 The Decision Usefulness of Financial Information

A number of papers that are related to the contested nature of accounting theory cite the factor of decision usefulness in the presenting of financial information. Indeed, both Gassen and Schwedler (2010) and Benston (2008) cite that in their current framework the IASB and the FASB identify decision usefulness as one of the primary objectives of financial reporting. Benston (2008) expands on this further by stating that the FASB adopted fair value accounting because it wants the numbers presented in the financial statements to be relevant to users. As stated in the summary to SFAS 157, financial statements 'should provide users of financial statements (present and potential investors, creditors and others) with information that is useful in making investment, credit and similar decisions'. It is interesting here that the emphasis is on 'financial statements' rather than 'accounting standards'. An early paper by Gaa (1986) asked what would make, and how can one go about establishing what would make, adequate *standards*? However, a later paper by Alexander (1999), by contrast, addressed a different, and logically prior question, which in its simplest form poses what would make, and how would one go about establishing what would make, adequate financial *statements*? The composition of financial statements has a direct impact on the relevance of decision usefulness within financial information.

Unfortunately, at the present time, accounting research has neither yet come up with an undisputed measure of decision usefulness, nor with a satisfying method to rank competing measurement concepts, such as fair value or historical cost, with regard to their relevant decision usefulness (Gassen and Schwedler, 2010). In a sample of 242 professional investors, Gassen and Schwedler (2010) found that those professional investors and their advisors who take interest in financial accounting issues (their respondents) generally rate fair values based on market values (mark-to-market fair values) as the most decision-useful measurement concept. Interestingly, they also consistently rank fair values based on model estimates (mark-to-model fair values) as the least decision-useful category. This clearly indicates that the respondents in this study do not see the concept of fair value as a homogeneous measurement concept. An interesting caveat to this, however, is that the same respondents viewed annual financial statements as the most relevant information source (Gassen and Schwedler, 2010). It is appreciated that annual financial statements are a historical barometer and are subject to many of the critiques levelled at accounting standards and theory outlined in this section. Notwithstanding this, they are a reliable source of information as they at least conform to the regulations in place at the present time.

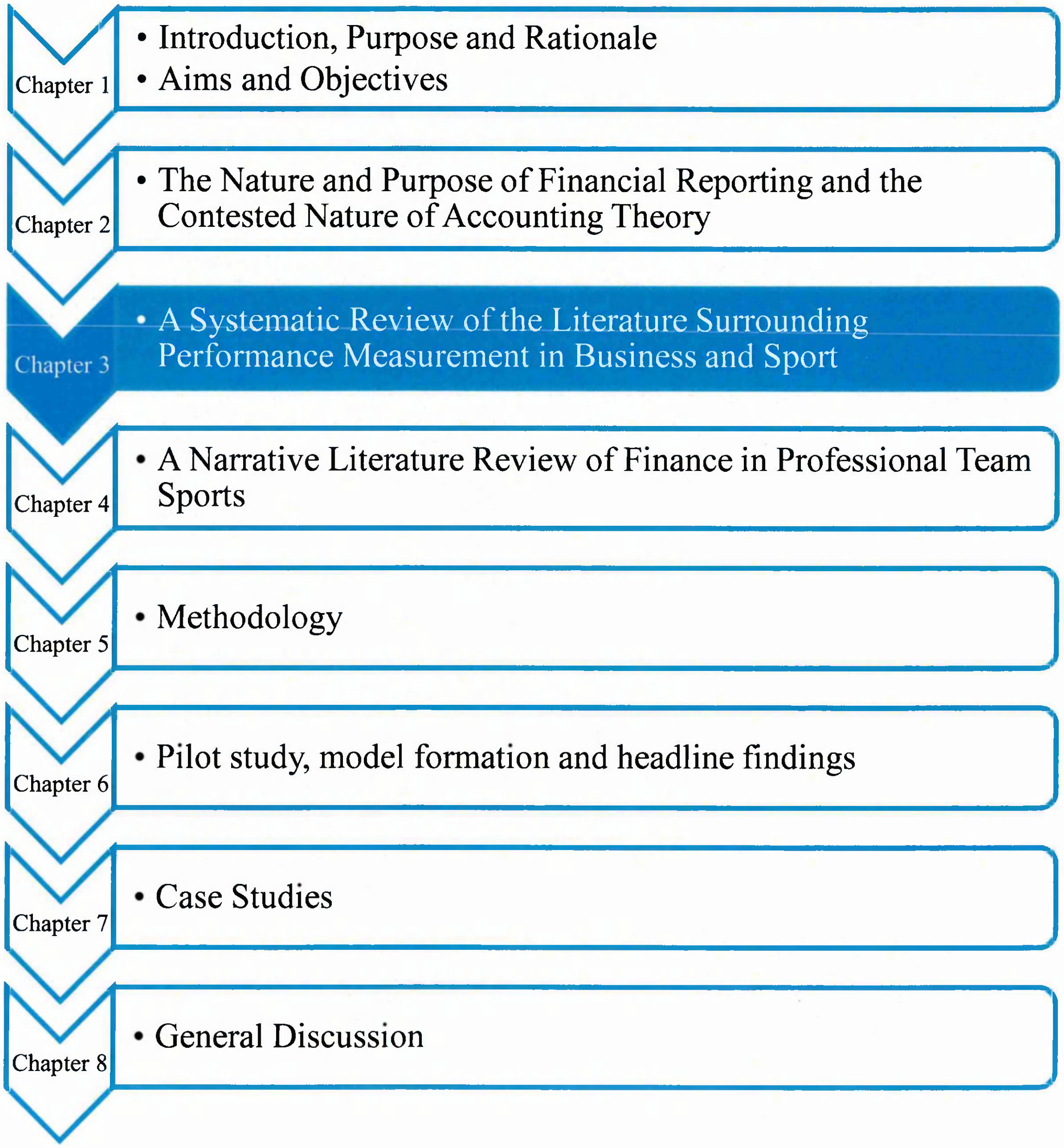
2.5 Summary

It is evident from the literature that throughout history the legitimacy of accounting practices and principles has been questioned. Much of this questioning surrounds the change from historical cost accounting to fair value accounting which is now widely accepted as the dominant practice at the present time. In sum, the fair value debate is far from over and much remains to be done (Laux and Leuz, 2009) and a high number of papers cited in this chapter that discuss this subject also conclude on a similar note. Subsequently, it becomes increasingly difficult to measure financial performance objectively and this in turn has implications for this thesis. It is evident that many business entities may be still be reporting financial performance in different ways, often combining historical cost accounting with fair value accounting. In professional football this has been evidenced in Italian football (the *salva calcio* decree) and across other European leagues including the UK (the valuation of players and their contracts). Furthermore, there are also implications and challenges based on the qualitative characteristics of accounting information, namely reliability, relevance, comparability and materiality. Any financial information used by the thesis must be deemed relevant and reliable and it must also be comparable amongst all the companies that will be analysed. Moreover, such financial information can be obtained from different sources and it is important that these different sources are considered to account for any material differences that may occur in the figures.

This chapter has demonstrated an understanding of the contested nature of accounting theory and whilst it is clear that much remains to be done in standardising accounting policies, there is a framework in place to proceed from. The author acknowledges that accounting theory remains a contested issue, but accounts have to be prepared in line with accounting principles and the current standards in place. Furthermore, accounts are prepared with a 'true and fair' view and decision usefulness in mind and the supporting of financial figures with qualitative characteristics of accounting information provides a reliable and valid framework upon which analysis can be undertaken. Annual financial statements remain a useful source of information for external use and the figures within them can be used to discuss the financial performance of an entity. The thesis takes its conceptual framework from accounting theory and applies this to the concept of performance measurement and analysis through the formation of the model. As such, the overarching conceptual framework is the nature of accounting theory which is then used to inform the formation of the model and subsequent results in the later chapters of the thesis. The contested nature of accounting theory is referred to numerously throughout this thesis and the process undertaken in the methodology and pilot study in chapters 5 and 6 were derived to ensure a rigorous methodological framework for the thesis. Firstly, the thesis progresses with a further literature chapter documenting a systematic review that focuses on performance measurement in business and sport.

CHAPTER THREE

A SYSTEMATIC REVIEW OF THE LITERATURE SURROUNDING PERFORMANCE MEASUREMENT IN BUSINESS AND SPORT



Chapter 1	• Introduction, Purpose and Rationale • Aims and Objectives
Chapter 2	• The Nature and Purpose of Financial Reporting and the Contested Nature of Accounting Theory
Chapter 3	• A Systematic Review of the Literature Surrounding Performance Measurement in Business and Sport
Chapter 4	• A Narrative Literature Review of Finance in Professional Team Sports
Chapter 5	• Methodology
Chapter 6	• Pilot study, model formation and headline findings
Chapter 7	• Case Studies
Chapter 8	• General Discussion

3.1 The Introduction of a Systematic Review

Undertaking a review of the literature is fundamental to any research project. Its aim is to understand the existing intellectual field in order to establish a research question which will further the knowledge base. It also allows the researcher to map and assess the relevant literature territory in relation to the subject area (Tranfield, Denyer and Smart, 2003). However, Tranfield et al (2003) critique the traditional 'narrative' literature reviews arguing that they lack thoroughness and in many cases are not undertaken as genuine pieces of investigatory science. Consequently, the reviews can be biased by the researcher, lack rigour and lack a means for making sense of what the collection of studies is saying. Torgerson (2003) offers a similar argument stating that the selection of papers to be included or excluded in a traditional literature review is often not made explicit and may reflect the biases of the researcher because the decision to select material for inclusion is usually made by the reviewer who gathers and interprets the studies. A systematic review, on the other hand, removes this potential bias and offers a more explicit alternative methodology for a literature review (Torgerson, 2003).

The systematic approach to conducting a literature review was first developed in the medical sciences and has attracted much attention within management research in recent years. Within the field of sport, exercise and health systematic literature reviews have increasingly replaced traditional narrative reviews and literature commentaries as a way of summarising the growing body of research (Smith, 2010). Many examples of systematic reviews within sport are mostly related to the area of health and physical activity due to its roots within the medical sciences (see Carek and Mainous, 2002; Foster, 2005; Machotka, Kumar and Perraton, 2009), although there is a justifiable case for using a systematic review in any research field. Undertaking a literature review can be immensely valuable and allows the researcher to develop a multitude of research and employability skills (Smith, 2010). Systematic reviews differ from traditional narrative reviews by adopting a replicable, scientific, and transparent process, in other words a detailed technology, which aims to minimise bias through exhaustive literature searches of published and unpublished work and by providing an audit of the reviewer's decisions, procedures and conclusions (Cook, Mulrow and Haynes, 1997). This means that theoretically anyone using the same reviewing process should end with the same search results, albeit perhaps slightly more updated depending on the timescales adopted in the review process. Smith (2010) concurs by stating that systematic reviews should be based on a pre-determined protocol so that they can be replicated if necessary. Systematic reviews entail a series of techniques for minimising bias and error, and as such systematic review and meta-analysis are widely regarded as providing 'high-quality' evidence. In the medical sciences, systematic reviews are subject to a hierarchy of evidence as detailed in table 1.

Table 1: Hierarchy of Evidence

Stage	Description
I-I	Systematic review and meta-analysis of two or more double blind randomised control trials.
I-2	One or more large double-blind randomised controlled trials.
II-1	One or more well-conducted cohort studies.
II-2	One or more well-conducted case-control studies.
II-3	A dramatic uncontrolled experiment.
III	Expert committee sitting in review; peer leader opinion.
IV	Personal experience.

Source: (Tranfield et al., 2003)

However, in other disciplines such as education and the social sciences there is often both less consensus regarding the appropriate methodology to be used for evaluating the evidence base, and little agreement as to how to use research evidence to inform policy and practice (Tranfield et al., 2003). Furthermore, policy questions are rarely addressed by the use of randomised control trials. For example, in the social sciences, the nature of evidence is often hotly disputed and there exists strong resistance to privileging one research method over another. This contested nature of evidence is evident in the field of accounting as outlined in chapter 2 of this thesis. Subsequently, as management research is often classified as a 'practically orientated social science', a hierarchy of evidence is not appropriate for this study based on the ontological assumptions relating to the field of management, in particular its fragmented and divergent nature (Tranfield et al., 2003). Furthermore, because of the issues surrounding the fragmented and divergent nature of management research and the argument that no one research method should be privileged over the other, the thesis also presents a 'narrative' review of literature (chapter 4) that covers the wider aspects of the business of professional football. Notwithstanding the omission of a hierarchy of evidence, the systematic review process can still be applied to management research. As Weed (2006) notes, the key to systematic review is that the criteria for the inclusion or exclusion of studies in the review is explicit from the outset, and while others may not agree with the inclusions, the criteria for such inclusions, and thus the scope of the review, are clearly delimited.

As management research questions need to be clearly specified, either as replication of an existing study, as further development of an existing study, or as a new study defined to meet a 'gap' in the literature, a more systematic review process can help to justify the final research question which is posed (Tranfield et al., 2003). It is acknowledged that systematic reviews have traditionally been applied in fields and disciplines privileging a positivist and quantitative position. Indeed, researchers from an interpretivist or phenomenological position may suggest that systematic reveiws, with their positivist learnings, should not be adopted in the social sciences. Furthermore, even within medical research, not everybody accepts that systematic reviews are necessary or desirable (Petticrew, 2001). However, for this thesis, a systematic review is justified as the study does attempt to seek a 'gap' within the literature that provides scope for suggesting new approaches to measuring sporting and financial performance in professional football clubs. Additionally, as highlighted previously, systematic reviews are useful across any field and discipline. Table 2 below charts the stages of a traditional systematic review.

Table 2: Stages of Systematic Review

Stage	**Phase**
Stage 1 - Planning the Review	Form a review panel Phase 0 - Identification of the need for a review Phase 1 - Preparation of a proposal for a review Phase 2 - Development of a review protocol
Stage 2 - Conducting a Review	Phase 3 - Identification of research Phase 4 - Selection of studies Phase 5 - Study quality assessment Phase 6 - Data extraction and monitoring progress Phase 7 - Data Synthesis
Stage 3 - Reporting and Dissemination	Phase 8 - The report and recommendations Phase 9 - Getting evidence into practice

Source: (Tranfield et al., 2003)

3.1.1 Stage 1 - Planning the Review

Prior to undertaking the review a review panel is formed and efforts should be made to ensure that the panel comprises of practitioners working within the field. The review panel should aide the direction of the review process through regular meetings and resolve any disputes over the inclusion and exclusion of studies (Tranfield et al., 2003). The initial stages of systematic reviews are often iterative processes of definition, clarification and refinement (Clarke and Oxman, 2001). In the management field it is necessary to conduct scoping studies to assess the relevance and size of the literature and to delimit the subject area and topic. Such studies will also consider the cross-disciplinary perspectives and alternative ways in which a research topic has previously been tackled (Tranfield et al., 2003). A scoping study has been included in this review for the reasons outlined above. When reporting the findings (section 3.3, p.50) the articles returned by the scoping study are merged with the articles returned by the second stage of the review owing to the fact that similar themes and topics emerged from both searches. As such, keeping these two searches as separate reviews would have been unnecessarily confusing. In summary, the scoping study is part of the systematic review process, particularly in the management discipline, and therefore needed to be included as part of the review.

After an initial scoping study is conducted a review protocol is formed. Any management review protocol may contain a conceptual discussion of the research problem and a statement of the problem's significance rather than a defined research question. Owing to the fact that management reviews are often regarded as a process of exploration, discovery and development it is often common to see a more flexible approach taken with the researcher adopting an *a priori* technique which can then be modified through the course of the study. Reasons for any such modifications should be explicitly stated so that the protocol does not compromise the researcher's ability to be creative in the literature review process (Tranfield et al., 2003).

3.1.2 Stage 2 - Conducting a Review

Despite sometimes taking considerable amounts of time and requiring perseverance and attention to detail, systematic reviews have been argued to provide the most efficient and high quality method for identifying and evaluating extensive literatures (Mulrow, 1994). A systematic search begins with the identification of keywords and search terms, derived from the formation of the earlier review protocol, and the keywords are then narrowed down into search strings most appropriate for the thesis (Tranfield et al., 2003). Though electronic databases render searching more systematic and efficient, searches should not be limited just to this and should also comprise unpublished studies, conference proceedings and other reputable information sources.

Only studies that meet all the inclusion criteria specified in the review protocol and which manifest none of the exclusion criteria need be incorporated into the review. As the decision of inclusion and exclusion can be a relatively subjective process, the review panel should be closely involved through the process. The researcher initially conducts a review based on the key search strings and in order to assess inclusion status relevant sources will be retrieved and the abstract or full text reviewed. At this point, any exclusion and the reasons for exclusion are outlined. Usually, this is due to the source not meeting the criteria for inclusion. The data-extraction process requires a documentation of all steps taken which aims to provide a historical record of decisions made during the review process. Data extraction forms are often employed in order to reduce human error and bias (Tranfield, 2003). Moreover, double-extraction procedures may be employed by two independent researchers and results compared and reconciled if required, which also reinforces the primary aims of the protocol surrounding transparency, accountability, and ensuring that the review process is replicable.

3.1.3 Stage 3 - Reporting and Dissemination

A high-quality systematic review should make it easier for the practitioner to understand the research by synthesizing extensive primary research papers from which it was derived. Tranfield et al. (2003) propose a two stage approach that could be adopted within management research. The first stage consists of a 'descriptive analysis' in gathering the basic data of research papers such as the name of authors, titles and abstract. The second stage is a 'thematic analysis' which references the broad themes apparent across the literature reviewed. However, although the systematic review can support an evidence-based practice approach, 'evidence' alone is often insufficient or incomplete within management studies. Therefore, the systematic review should be regarded as 'evidence informed' rather than 'evidence based' (Tranfield et al., 2003). Moreover, decision makers should not rely solely on the outcome of a systematic review. The problem-solving skills and personal experience of decision makers are encouraged to be utilised during the review process (Tranfield et al., 2003). In relation to the topic of this thesis the systematic review was executed in two parts. Firstly a systematic scoping study was conducted undertaken to establish what literature has been published on the topic within the sports management field. Secondly, a full systematic review was undertaken to establish literature on the topic under both sport management and business management disciplines. This subsequently provided the author with the foundations upon which to build the methodology for the thesis.

3.2 The Systematic Review Process

The review strategy has a number of different stages to provide a detailed systematic and explicit method for the review relevant to the topic area. The following sections outline how the review process was implemented and conducted for the basis of this thesis with the main steps outlined in table 3.

Table 3 - Stages of the systematic review for the thesis

Stage 1 - Planning the review	
Steps	**Content**
Step 1: Forming a review panel	Professor Simon Shibli (Director of Studies); Rob Wilson (Supervisor); Daniel Plumley (PhD candidate); Jo Dobson (Student and Learning Services)
Step 2: Mapping the field of the study	
Step 2.1. Conduct scoping studies	A brief overview of the related topics surrounding the field, such as *"the financial health of European football" or "the financial performance of European football clubs"*.
Step 2.2. Define the aim of this systematic review	To identify how financial performance is measured and reported within the general business world and furthermore how such methods can be applied in relation to professional team sports
Step 3: Developing a review protocol	
Step 3.1. Discussion of the problem	How is financial performance measured? What is the best way to interpret the annual reports of businesses? Can a general model be created to analyse the firm performance of professional sports teams across a variety of performance areas?
Step 3.2. Search strategy	A number of keywords were first identified which will then be combined into search strings to give the review focus and structure
Step 3.3. Define criteria for including studies	1. Time frame: (1990 onwards) - Just prior to the formation of the EPL and larger television deals and also just after the Taylor report into the Hillsborough disaster which required clubs to have all-seated stadia 2. Academic relevance: are the papers selected through the search criteria relevant to the topic in question 3. Language: English 4. Length: 3 pages or more - short articles are less likely to provide an evidence or argument supported approach and will tend to be more journalistic
Step 3.4. Project timetable	1/2012 - 6/2012
Step 4: Identification of research	
Step 4.1. Define key terms	Sports, finance, management, performance, measure, football, economics, ratio analysis, business, statistical analysis, model, benchmark, evaluate, key performance indicators

Step 4.2. Group keywords into search strings	1. financial performance AND manag* 2. "financial performance" AND manag* 3. "financial performance" AND manag* AND ratio analysis 4. "financial performance" AND manag* AND benchmark* 5. "financial performance" AND manag* AND evaluat* 6. "financial performance" AND manag* AND key performance indicators 7. "financial performance" AND manag* AND (sport OR football OR soccer) 8. "financial performance" AND manag* AND ratio analysis AND (sport OR football OR soccer) 9. "financial performance" AND manag* AND benchmark* AND (sport OR football OR soccer) 10. "financial performance" AND manag* AND evaluat* AND (sport OR football OR soccer) 11. "financial performance" AND manag* AND key performance indicators AND (sport OR football OR soccer)
Step 4.3. Define appropriate databases	Emerald Fulltext, Business Source Premier, Sport Discus, Scopus, Web of Science
Step 5: Evaluation of studies	
Step 5.1. Include studies based on criteria	1. Time frame: (1990 onwards) 2. Academic relevance 3. Language in English 4. Length (3 pages or more)
Step 5.2. Assess included studies based on the title and abstract	Create a table that includes inclusion or exclusion decision for each document
Step 6: Conducting data extraction	Providing a historical record for the decisions made during the review process
Step 7: Conducting data synthesizing	Summarising and integrating relevant studies to achieve a greater level of understanding of the study
Stage 3 - Reporting and dissemination	
Step 8: Reporting findings	
Step 9: Getting evidence into practice	

3.2.1 Stage 1 - Planning the Review

Step 1: Forming a Review Panel

The members of the review panel were selected on the basis of their experience in areas relevant to the topic and also due to their involvement in the PhD process. The panel members are as follows;

- Professor Simon Shibli (Director of Studies)
- Robert Wilson (Supervisor)
- Jo Dobson (Learning and IT Services)
- Daniel Plumley (PhD Candidate)

The systematic review was discussed in a number of meetings with at least two of the panel members being present at any one meeting. During these meetings, the panel identified the aim of the systematic review, the appropriate databases and key terms. Subsequent meetings were conducted to establish the practicalities of the systematic review and which areas of the review were carried out at certain points.

Step 2: Mapping the Field of Study

In order to gain a broad perspective of the field of study and to clarify the aims and objectives of the review a series of 'scoping studies' were completed in an attempt to examine the literature available not just on the financial aspects of English football, but more broadly, European football and professional team sports in general. For the purpose of this thesis four 'scoping studies' were conducted following the same inclusion criteria outlined in table 3. The search strings were entered into the library catalogue and subsequently filtered in terms of academic relevance, time frame, language and length and subject to a number of key search terms identified as relevant by the reviewer. The four conducted searches included "the financial health of European football", "the financial performance of European football clubs", "professional football and finance" and "English professional football and finance". The decision to conduct four scoping studies in a systematic manner was done to obtain as much relevant literature as possible on the topic whilst reducing bias within the review and also to chart duplication of articles within the different searches to highlight the fact that should the thesis be conducted again the reviewer would obtain similar results within a number of different searches. The four 'scoping studies' undertaken and the criteria for inclusion are outlined in table 4.

Table 4 - Scoping study search

Search Number	Date of Search	Title	Parameters	Publication Date	Subject Terms	Language	Search Results	Included articles
1	30/1/2012	"The financial health of European football"	1. Limit to articles from scholarly publications 2. Exclude newspaper articles 3. Items available online	1990 - Present Date	analysis, business, economics, economic conditions and forecasts, economic growth, economic theory, football, management, model, performance, professional soccer, risk, risk factors, soccer, sport, sports, western Europe	English	427 articles	6 selected
2	30/1/2012	"The financial performance of European football clubs"	1. Limit to articles from scholarly publications 2. Exclude newspaper articles 3. Items available online	1990 - Present Date	analysis, business, corporate governance, economic models, economic theory, economics, football, management, model, performance, professional football, professional sports, sports, western Europe, statistical analysis	English	341 articles	28 selected
3	30/1/2012	"Professional football and finance"	1. Limit to articles from scholarly publications 2. Exclude newspaper articles 3. Items available online	1990 - Present Date	analysis, business, business/finance, economic models, economic impact, economic growth, economic development, economic conditions and forecasts, finance,	English	886 articles	34 selected

					football, investment analysis and personal finance, management, performance, professional football, professional soccer, professional sports, sport, statistical analysis, united states, western Europe			
4	30/1/2012	"English professional football and finance"	1. Limit to articles from scholarly publications 2. Exclude newspaper articles 3. Items available online	1990 - Present Date	analysis, business, corporate governance, economic models, economic theory, economics, finance, football, management, performance, professional football	English	200 articles	11 selected

Upon completion of the scoping studies 79 articles were selected in relation to their relevance to the topic. It became apparent to the reviewer that the use of words such as 'health' was causing a number of articles from the medical sciences to be included which are of no relevance to the topic and were subsequently discarded. This confirms that the rationale for conducting scoping studies in a systematic way was the right one and allowed the reviewer to alter the search strings in order to obtain a wide variety of more relevant results. Once the review had been conducted it was also apparent that there were a number of duplications of certain articles within the four searches. This confirms that the searches were being conducted using relevant key words and the results would be replicated if the scoping studies were to be undertaken again in the future. Subsequently, owing to duplication, the number of articles was reduced from 79 to 38. These 38 articles were then sorted by relevance to the topic and the aims and objectives of the thesis. After dissemination of the articles returned in the scoping study it became apparent that there was a need for a more extensive search to be carried out, one that was considerably more rigid in its approach. As such, the review subsequently focused on step 3 of the systematic review process (see table 3) and developed a review protocol based on specific search strings which allowed the author to narrow the field of relevant literature.

Step 3 - Developing a Review Protocol

The process of constructing a more extensive literature review began with outlining a number of key search strings which relate to the topic of the thesis. The chosen search strings, the databases in which they were run and the inclusion criteria are outlined below. Following this, table 5 documents the number of hits by database for each individual search string. This approach was undertaken to be sure that all possible areas of the literature were being covered and furthers the approaches to systematic reviews undertaken in other doctoral studies by including multiple search strings in multiple databases as opposed to one single research string in multiple databases. As highlighted in table 3 (step 4.2) it was decided to group the term 'financial performance' together rather than as two separate terms (search string 2 as opposed to search string 1) to make the searches more relevant. It is also impractical to search for financial performance as separate terms as this returns in excess of 15000 hits in some databases (see table 5). In addition to this, the term manag* has also been kept as a constant throughout all searches in an attempt to provide consistency in the results.

Databases Used

- Emerald Full Text
- Business Source Premier
- Sport Discus
- Scopus
- Web of Science

Upon consultation with library experts it was decided that these are the main databases that would return the most relevant results in relation to the aforementioned search strings.

Include Studies Based on Criteria

1. Time frame - 1990 onwards

2. Academic relevance - peer reviewed

3. Language in English

4. Length (3 pages or more)

NB. When the search strings were originally run in the first instance only parameters 1 and 2 were considered in order to ensure the greatest number of results was obtained and that nothing had been missed. Results were then filtered by parameters 3 and 4 at a later stage.

Table 5 - Number of hits by individual search strings (database specific)

Database	***Date***	***Search String***											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Total**
Emerald Full Text	09/03/2012	32380	5748	1335	1886	4286	2046	206	34	72	161	80	**48234**
Business Source Premier	14/03/2012	6018	5227	67	212	616	39	21	0	2	3	0	**12205**
Sport Discus	14/03/2012	39	31	1	4	9	1	17	1	4	6	1	**114**
Scopus	12/03/2012	10084	2223	74	135	354	40	11	0	2	5	0	**12928**
Web of Science	12/03/2012	6242	2115	34	53	262	18	13	0	1	6	0	**8744**

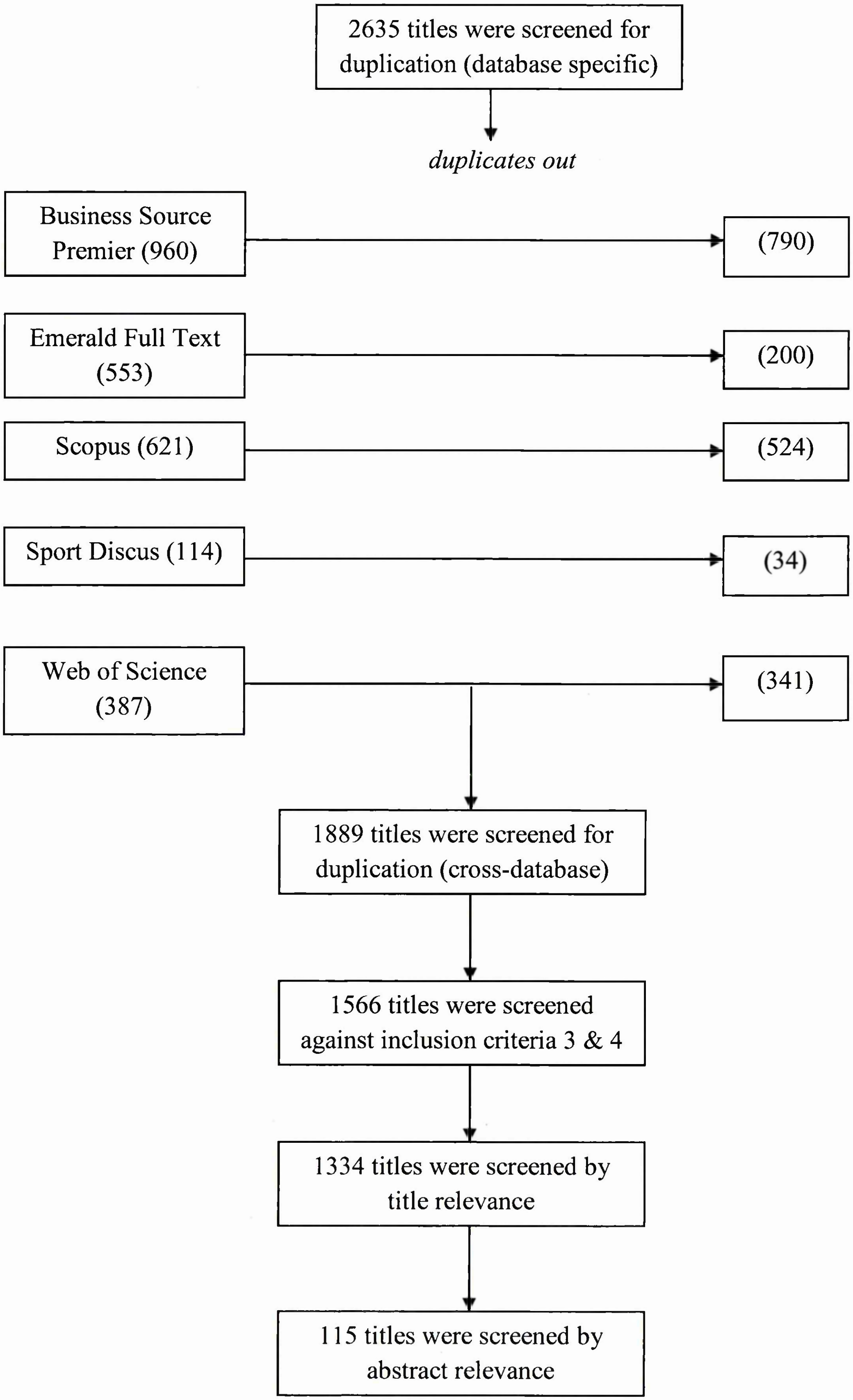
It was decided at this stage that some of the search strings were returning figures that were neither workable nor practical. With this in mind, and with consistency among the search strings already considered, it was decided that only a certain number of the resulting hits would be carried forward for further analysis. Any search string returning over 1,000 hits was subsequently dropped from the analysis. However, by keeping the terms *"financial performance"* and *manag** constant throughout, the articles within the search strings that returned more workable numbers would have been highlighted in the earlier search strings regardless. This is due to the way in which the literature searching tool filters information. Jo Dobson, a member of the review panel who is part of learning and IT services team, indicated that as long as all search strings contained the same two terms at the beginning (*"financial performance"* and *manag**) then the same results would be found in all searches. Therefore, the more terms you add to each search, the smaller the number of hits it returns. Table 6 charts the revisions to the results obtained from the searches and the number of articles carried forward for analysis by individual database.

Table 6 - Revised search strings carried forward by database

Database	***Date***	***Search String***											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Total**
Emerald Full Text	09/03/2012	X	X	X	X	X	X	206	34	72	161	80	**553**
Business Source Premier	14/03/2012	X	X	67	212	616	39	21	0	2	3	0	**960**
Sport Discus	14/03/2012	39	31	1	4	9	1	17	1	4	6	1	**114**
Scopus	12/03/2012	X	X	74	135	354	40	11	0	2	5	0	**621**
Web of Science	12/03/2012	X	X	34	53	262	18	13	0	1	6	0	**387**
Total number carried forward													**2635**

The 2,635 articles were then inputted into the referencing software package Refworks for further analysis. The results were organised into specific folders for each database. Following this, duplicates were extracted firstly within individual databases then secondly across all databases to provide a new total number of unique articles. The term 'close duplicates' was used to screen the titles to account for differences in wordings between databases. Refworks states that extracting 'close duplicates' rather than 'exact duplicates' is a far more reliable and valid process. These articles were then filtered through parameters 3 and 4 of the inclusion process and by title and abstract to provide a total number of articles that are of direct relevance to the thesis and which will be analysed in the reporting and dissemination stage of the systematic review. Figure 3 charts this process and the final number of articles that were examined.

Figure 3 - Flow chart depicting the article selection process



The remaining 115 articles were subsequently reviewed in relation to the relevance of their abstracts. The articles were reviewed by the PhD candidate and both members of the supervisory team. Following this, a meeting was undertaken to establish which articles had been selected by the reviewers for inclusion in the literature review. The result of this meeting meant that 28 titles were selected for inclusion with a further 14 articles requiring more in depth analysis before the decision was made for inclusion or exclusion. Consequently, after completion of the abstract review 42 articles were carried forward for further analysis. The 38 articles highlighted in the scoping study stage were added to the 42 returned from the review protocol stage which meant that a total of 80 articles were analysed. This completed the two stage approach to the systematic review and meant that the author could be confident that all the relevant literature relating to the topic had been gathered at this point. The reporting of the findings from the systematic literature review is outlined below.

3.3 Reporting the Findings

The reporting of the findings is structured under five key headings; accounting concepts and asset valuation, performance measurement in business and sport, the peculiar economics of professional team sports, governance and ownership structure in professional football and financial performance in sport. In keeping with the natural progression of the literature review (see chapter 2) the accounting literature is discussed first followed by the ways in which business performance can be measured. The more football specific literature will be covered towards the end of this chapter.

3.3.1 Accounting Concepts and Asset Valuation

A number of articles analysed link broadly to the general concepts surrounding accounting and the prescribed framework for accounting standards in the UK as described in chapter 2. Some of these articles are related more generally to the framework for accounting standards whilst others relate more directly to professional football and the valuation of football players as assets to a football business. Shah (1998) and Whittington (2000) provide a descriptive commentary surrounding international and national accounting practices (see chapter 2 for a more in depth discussion on accounting practices). Whittington (2000) considers accounting practices in relation to GAAP and provides a case study approach, focusing on the European steel industry, adopting both domestic and US GAAP practices in an attempt to produce a comparative study. Whittington (2000) outlines the problems faced by researchers attempting to generalise across industries. In light of the fact that many different industries operate under different financial constraints and different accounting practices it becomes increasingly difficult, if not arguably impossible, to generalise across industries when analysing financial performance. However, there remains scope to compare performance of organisations within a certain industry, particularly in professional sports leagues as clubs will be competing against each other under the same governing rules and boundaries.

Although this was envisaged to be one of the main problems for the proposed thesis as football is an industry different to any other, the robustness of the methodology alleviated any concerns in relation to the analysis of financial data. Additionally, the choice of ratios utilised by Whittington (2000) is also subject to critique. Ratio analysis is used as part of the methodology but only analyses one concept, return on equity, in any sufficient detail. This is not the only measure of financial performance and other factors could have been considered.

Shah (1998) also focuses on accounting practices and directly analyses the issue of creative accounting in the UK. Shah (1998) examines the accounting practices of two UK companies which issued a creative accounting instrument. Using a combination of interviews, documentary sources and financial statement information, Shah (1998) concludes that, for the companies analysed, the management took advantage of gaps in accounting standards to present a biased picture of financial performance. Furthermore, Shah (1998) argues that creative accounting in the UK is influenced by two key motivators, stakeholder contracts and performance indicators, and that temptation to influence certain accounting ratios is greatest when firms are close to breaching critical debt covenants, or management remuneration is linked to accounting data (Shah, 1998). Shah offers a similar conclusion to Whittington (2000) in the sense that the practice of creative accounting makes comparison of the performance of different companies both difficult and costly, and goes against the objectives of harmonisation of accounting policies and practices (Shah, 1998).

As previously indicated in chapter 2, one of the main issues surrounding accounting policies and professional football is the classification of football players as assets to the football club and their subsequent value to the business. The majority of sporting related literature on accounting policies covers this issue and Gerrard (2005) and Morrow (1996) are two authors, among others, who have studied this topic in more detail. The former puts forward a resource-utilisation model of a professional sports team where teams optimise the stock of athletic resources (i.e. playing talent), subject to ownership preferences, over sporting and financial performance. Gerrard (2005) considers the theory surrounding resource based view (RBV) which emerged in the strategic management literature partly as a reaction to the more economics-based approaches in which the strategic decisions of firms are seen as primarily driven by competitive forces (Gerrard, 2005). The resource-utilisation model of a professional sports team consists of five basic relationships: (1) the team-owner objective function; (2) the sporting production function; (3) the profit function; (4) the revenue function; (5) the cost function. All of these functions are subsequently translated into mathematical formulae before ordinary least squares (OLS) multiple regression is used, alongside performance ratio analysis, to determine the efficiency of the model.

Gerrard (2005) states that professional sports teams are viewed as a sporting production function in which the output - team performance (wins or losses) - is produced from the input - playing talent - with individual player performance as an intermediate good (Gerrard, 2005). This analysis appears far too simplistic and the paper is not without its critics, one of which includes Kern and Sussmuth (2005). Organisational performance in football clubs is not only about scoring, winning and losing; arguments in the resource based view of Gerrard (2005) and the stochastic frontier analysis of Kern and Sussmuth (2005) illuminated the multi-dimensional organisational nature of football clubs. Nonetheless, the main finding of the paper does provide an interesting insight into the financial performance of professional football clubs. Gerrard (2005) found that the financial performance of teams in the EPL from 1998-2002 was significantly affected by their ownership status confirming the empirical evidence that suggests that there is a link between ownership status and the technical efficiency of financial performance in English professional football clubs. In particular, it was found that those teams listed on the London Stock Exchange have lower wage costs, higher revenues, and better operating margins, *ceteris paribus* (Gerrard, 2005). This view is supported by Wilson, Plumley and Ramchandani (2013) who found that the general financial performance of professional football clubs in England was better amongst clubs that have floated on the stock market, be that in the past or currently.

The valuation of football players as assets has always been somewhat of a grey area in relation to professional football clubs and accounting literature, often due to the confusion surrounding which accounting practices should be followed. Using a more simplistic methodology than Gerrard (2005), Morrow (1996) considered whether the prospective services provided by a football player on behalf of the club holding his registration can be recognised as an accounting asset. Human resource accounting since the 1960s has been dominated by two issues - firstly, can human resources be satisfactorily defined and recognised as accounting assets and secondly, can a satisfactory valuation methodology be provided to reflect those assets (Morrow, 1996). Four valuation methods are put forward by Morrow (1996) in an attempt to answer such questions; the historical cost model, the earnings multiplier model, the directors' valuation model and the independent multiple player evaluation model. The consideration around these valuation methods is of particular relevance to the thesis as the value of assets (most normally in the form of players) to a professional football club will have some influence on the financial performance of said club. The valuation of assets (players) to a professional football club could be particularly relevant if a club is in a perilous financial situation or close to liquidation or administration for example. Here, a club may wish to sell some of its most prized assets (players) to cover costs or to lower debt levels. Subsequently, each of the four valuation models put forward by Morrow (1996) is described and analysed in turn to examine its potential relevance to the thesis.

The historical cost model (method 1) involves capitalising players acquired by the club via the transfer market on the balance sheet at their cost of registration. The earnings multiplier model (method 2) involves applying a multiplier to a players' earnings to produce a current valuation of that player. The directors' valuation model (method 3) involves capitalising the players at a value provided jointly by the Chairman and Manager whilst the independent multiple player evaluation model (method 4) involves various informed and knowledgeable sources providing a value for the players of the club in question (Morrow, 1996). The latter is based on a model set out by Biagoni and Ogan for valuing US professional team sports. All of the above methods have their respective strengths and weaknesses although methods 3 and 4 become increasingly difficult to implement without internal access to the club in question and industry experts, in this case namely the Chairman and the Manager. Furthermore, method 3 is likely to be far more susceptible to window dressing by management, as clubs are unlikely to wish to disclose a low valuation in respect of their players to the outside world (Morrow, 1996). As a result, methods 1 and 2 would arguably be the most relevant when valuing football players as assets although the earnings multiplier model (method 2) is also open to critique. There is no academic acceptance that the theoretical conditions that would justify the use of wages and salaries as surrogate measures of human resource value exist in practice (Morrow, 1996).

Similarly, Amir and Livne (2005) also analysed the topic of accounting, valuation and duration of football player contracts with reference to the guidelines outlined in FRS 10 and concluded that given the high degree of uncertainty associated with such contracts, it is not clear that this treatment is consistent with asset capitalisation criteria. Common to FRS 10 is the presumption that assets acquired in an arm's length transaction should be capitalised. The rationale behind this presumption is that the transaction price provides reliable evidence about the fair value of the acquired assets (Accounting Standards Board, 1997). However, this overlooks the possibility that certain fixed assets, tangible or intangible, represent speculative investments in that their recoverability and association with future economic benefits are highly uncertain (Amir and Livne, 2005). This is particularly relevant in relation to the nature of the professional football industry and the paper by Amir and Livne (2005) questions the applicability of this presumption by demonstrating that the relationship between arm's length investment in player contracts by football companies and future benefits may be tenuous. FRS 10 requires that all purchased intangibles should be capitalised separately from goodwill and that all intangibles shall be amortized over their useful economic lives, unless useful life is indefinite, but the analysis here suggests that the rate of economic decline in the value of player contracts is higher than the rate of amortization and impairment reported by sample firms under FRS 10 (Amir and Livne, 2005). This highlights how diverse an industry football is compared to other areas of business and how difficult it would be to compare football clubs to other businesses in other industries. There would be a differentiation between asset amortisation in football clubs compared to other businesses where assets are more tangible, meaning that what is being measured would not be like-for-like. Despite there being a regulating standard in place (FRS 10 in this instance) there would still be inconsistencies in the reporting of asset valuation across industries, further highlighting the discrepancies within the conceptual framework for accounting.

Prior to FRS 10, UK football companies could elect between capitalisation and amortisation of players' transfers and immediate expensing of those transfers. Companies that elected the capitalization method categorised player transfers as intangible assets and amortised these intangibles over the period of the contract (Amir and Livne, 2005). In a sample of 58 football companies over the period 1990-2003, which factored a number of financial performance measures into the model to assist with the analysis, Amir and Livne (2005) found a potential shortcoming of a capitalisation requirement that is based on the presence of arm's length transactions and the evidence uncovered does not support conclusively the capitalisation requirement in that it indicates weak association of intangibles with future benefits (Amir and Livne, 2005). Furthermore, this would also impact on the ability to conduct intra-industry comparisons.

Forker (2005) stated that Amir and Livne (2005) offered a timely investigation of the requirement of FRS 10 and other international standards to recognise transfer fees for football players as assets. The introduction of FRS 10 has meant that football clubs can no longer exploit the vagueness that was present in regulatory guidance to immediately write transfer fees off as expenses. However, both at the time the paper was written and in the present day, the case of unusual assets such as football player contracts makes it increasingly difficult to estimate useful economic life and amortisation. Consider, for example, the case of Manchester United's acquisition of a young player with high potential such as Wayne Rooney in 2005. He may be allowed time to develop early in his contract, and his skill set may diminish later in his career so that the net benefit obtained will be relatively small at the beginning and end of his playing career and highest in the middle years giving rise to a low-high-low pattern of amortisation (Forker, 2005). This makes it increasingly difficult to classify the exact value of intangible assets to a football company and the inconsistency that still surrounds accounting policies and principles further confuses the situation. Additionally, as previously stated, it also makes the comparison of the football industry to another industry increasingly difficult to rationalise and justify.

Likewise, Tunaru, Clark and Viney (2005) stated that given the worldwide popularity of football and the significance of the players themselves as financial assets, surprisingly little academic literature is available on the question of how to determine a player's financial value to a club. Tunaru, Clark and Viney (2005) go on to state that literature on major determinants from a financial economics point of view is sparse and that the majority of studies in this area concentrate on statistical modelling or on the prediction of team performance or the efficiency of professional sports clubs. Tunaru, Clark and Viney (2005) produce an option pricing framework for valuation of football players based on a model which includes the turnover of the club, the number of Opta Index points for the individual player under evaluation and the sum of Opta Index points for all players playing for the club. Opta Index points include factors such as number of games played, number of goals scored, and number of assists. Whilst the model allows for the benefits and value of one individual player to a club to be analysed it does not allow an aggregation process to be calculated to value all of the players at one particular club. This is due to the model becoming multidimensional and the value of the club not simply being given by multiplying the sum of Opta Index points by the number of players at the club owing to the fact that the synergy (or the correlations between the players) effects must be taken into consideration (Tunaru, Clark and Viney, 2005). This paper offered a solution to the question "How much is this player worth at this moment in time" but whilst players are bought and sold in some sort of a market, the model produced does not correspond to the financial meaning of the market. This is due to value of the market, or a specific player for example, changing over time. As club revenues, broadcasting deals and ticket prices have increased in professional football over the last twenty years, so too has the amount for which football players are bought and sold. Therefore, the value of player at a specific moment in time will not remain constant at a different point in time.

Whilst the majority of literature published in recent years has been directly related to FRS 10 and attempting to define and value intangible assets, this does not explain the wider picture in terms of the football clubs as a business. There will be a number of aspects which will determine the business management of a professional football club. These will, more often than not, include financial factors, intangible resources, off-balance sheet variables and internal performance objectives. Whilst the latter becomes difficult to evaluate without internal access to the business, the other areas can be outlined and evaluated within a specified framework. An example of how this could work within an intra-dataset is provided by Andrikopoulos and Kaimenakis (2009). Their paper puts forward a model for computing a composite index for the intangible resources of the football club applying the concept of intellectual capital analysis to a football club's organisational identity and performance. Many studies have focused on intellectual capital in knowledge based firms (see Andriessen, 2004; Liebowitz and Suen, 2000) and Andrikopoulos and Kaimenakis (2009) argue that despite the fact that football clubs are organisations that may not usually be studied as knowledge-based, a similar approach can be employed since their value is largely due to off-balance sheet intangible resources as is the case in most knowledge-based firms. More specifically, factors such as the club's history, its fan base, its scoring performance and placement in the championship and many other qualities of a football club define most of its organisational identity and value-creating processes, but fail to appear in financial reports (Andrikopoulos and Kaimenakis, 2009).

These factors explain in part why football clubs fulfil the going concern opinion despite reporting poor financial performance. However, Andrikopoulos and Kaimenakis (2009) pay very little attention to financial factors focusing directly on intellectual capital, that is, to serve the needs of the club's stakeholders, albeit the study considers other stakeholder groups such as fans, players and the media. It has previously been noted (e.g. Kern and Sussmuth, 2005) that organisational performance in football clubs is not only about scoring, winning and losing and that, in fact, the performance of football clubs is multi-dimensional. Much of the statistical analysis methods (see *DEA analysis in professional sport*), however, focus exclusively on performance measures such as league position, win ratios and goals scored and offer very little in the way of financial performance indicators and how this can be included in the performance function. This highlighted a potential gap in the literature which involved devising a model built on similar principles but one that incorporates a mixture of both financial and off-balance sheet indicators.

Andrikopoulos and Kaimenakis (2009) aimed to construct a single, comprehensive index of organisational performance for the football club and employ a weighted average methodology. In each dimension of organisational identity a weight is assigned summing to 1. The organisational performance of the football club is the weighted average of the performance in each of these organisational dimensions and the organisational performance in each of these dimensions is a weighted average of the performance in the sub domains of a particular organisational dimension which also sums to 1. Clubs are then ranked against other clubs in the league based on the sub domains where 1 highlights the best performance within a particular league with the lowest rank being denoted by the number of teams in the league (x) (Andrikopoulos and Kaimenakis, 2009). An example of how this would work in practice is outlined in table 7.

Table 7 - An organisational performance index for the football club

Calculation of the football club composite index of organisational performance I (FOrNeX)(No. of league members: 18, weights in parentheses)				
Dimension of organisational performance	*Subdomains of organisational performance in each dimension*	*League rank on subdomains*	*Performance in organisational dimension*	*Index I (FOrNeX)*
Athletic Performance (30%)	Win ratio (90%)	2	2x0.9+4x0.3-3x0.2=2.4	
	Goals scored - goals against (30%)	4		
	Cards received (-20%)	3		
Capital Providers (20%)	Return on equity (30%)	8	0.3x8+0.7x4=5.2	
	Return on debt (70%)	4		
Fans (20%)	Number of fan clubs (50%)	1	0.5x1+0.5x3=2	
	Number of season tickets (50%)	3		
Media (30%)	Number of favourable media quotes (30%)	4	0.3x4+0.4x2+0.3x1=2.3	
	Number of readers in club-friendly newspaper (40%)	2		
	Broadcasting rights/turnover (30%)	1		
				0.3x2.4+0.2x5.2+0.2x2+0.3x2.3=2.9

Source: (Andrikopoulos and Kaimenakis, 2009: 264)

Table 7 outlines a method of developing an index performance score for organisational performance for football clubs utilising a number of different dimensions of organisational performance employing a weighted average methodology. However, there are some details lacking which detract from the robustness of such a technique. Firstly, there is no evidence as to how the weights for each dimension were assigned. Whilst this process is normally highly subjective in nature it is advised that there should be an established panel that generates the weighting figures or that some prior research must be conducted to gauge opinion from people with expertise in the subject area with relation to weighting the dimensions. Furthermore, the league rank on sub domains provides only an intra-set data study and the findings cannot be made generalisable external to the industry that the business operates in.

3.3.1.1 Key Issues

Surprisingly little academic literature is available on the question of how to determine a player's financial value to a club. The majority of literature that has been produced in this area has focused directly on this problem and all this work has been done in relation to the financial reporting standard FRS 10. However, this overlooks the possibility that certain fixed assets, tangible or intangible, represent speculative investments in that their recoverability and association with future economic benefits are highly uncertain. Furthermore, the literature written on this topic has encountered issues with the way in which financial performance is reported, as previously discussed in chapter 2. It is increasingly difficult to generalise across industries because businesses and industries operate under different financial constraints and accounting principles. Additionally, the practice of creative accounting is still an issue and it is often used to present a biased picture of financial performance. Subsequently, there is still no general academic acceptance when it comes to valuing football players.

There are, however, several other factors that affect the performance of professional football clubs, and these are not exclusively limited to financial elements. More specifically, factors such as the club's history, its fan base, its scoring performance and placement in the championship and many other qualities of a football club define most of its organisational identity and value-creating processes, but fail to appear in financial reports (Andrikopoulos and Kaimenakis, 2009). Adapting the model put forward by Andrikopoulos and Kaimenakis (2009) constituted a substantial part of the methodology for this thesis and the weighting of factors provided further depth and robustness to the methodology (detailed in chapter 6).

3.3.2 Performance Measurement in Business and Sport

General approaches to performance measurement in both the business and sporting sector (see Chadwick, 2009; Crandall, 2002; Howat, Murray and Crilley, 2005; Powers, 2004) have been outlined in previous studies. However, some of these, namely Crandall (2002) and Powers (2004) are magazine commentaries making it difficult to draw any meaningful analysis from them. Furthermore, neither Crandall (2002) nor Powers

(2004) cite financial performance as an important factor when analysing business performance owing to the fact that they are aimed at discussing consumer behaviour in the retail industry. Crandall (2002) focuses more on performance measurement from a quality and customer service viewpoint, disregarding the importance of financial performance entirely. Powers (2004) does cite financial performance as a factor in defining how well a company is performing but identifies that this does not necessarily outline why the company is performing that way. Powers (2004) argues that benchmarking can answer this question as organisations are now continually looking at comparing processes and identifying performance gaps and areas for improvement. Benchmarking is undoubtedly an important point to consider when analysing financial performance although, in relation to the paper by Powers (2004), the content is less relevant and the practical example is tailored towards the healthcare industry. Powers (2004) does mention key performance indicators (KPI's) but does not give any indication as to what these could be categorised as, merely stating them as important.

Howat, Murray and Crilley (2005) and Chadwick (2009) offer more insight into performance measurement that is directly related to sport. However, the former is again less relevance to this thesis. Howat, Murray and Crilley (2005) examine a number of performance measures currently used in Australian public aquatic centres. However, the financial measures used by this paper relate to the leisure industry, focusing on factors such as expense recovery and total visits per year. Contrastingly, Chadwick (2009) does offer some interesting insights into the way in which sports management research has expanded recently and outlines some of the key issues involved in measuring performance. Major changes have taken place in sport in recent years, which has consequently led to the emergence and development of an associated sport management literature (Chadwick, 2009). Chadwick (2009) provides a brief overview of the development of sport before outlining the elements of sport that make it different from other products and industry sectors. Most notably these differences include concepts such as uncertainty of outcome, competitive balance, contest management, collaboration and competition and performance measurement (Chadwick, 2009). Uncertainty of outcome and competitive balance are discussed further in chapter 4 (section 4.3; p.97). Subsequently, it is the concept of performance measurement that the following analysis focuses on as it has direct links to some of the performance measurement factors that are considered as part of this thesis.

Chadwick (2009) states that the most obvious form of performance measurement are the league tables of points and medals won. This exposes sport to a level of scrutiny not evident in other industrial sectors, which is exacerbated even further by the media coverage and general interest in sport (Chadwick, 2009). A further measure is the importance of professional sports teams utilising their stadium capacity to maximum effect. Utilising stadium capacity is a financial imperative: how to make best use of a valuable finite resource and one that can potentially generate important revenue flows (Chadwick, 2009). The paper also puts forward some interesting commentary on the debate surrounding the importance of measuring both on-field and off-field performance. Measuring on-field performance rather deflects attention away from the measurement of off-field performance, a topic that has become increasingly contentious in recent years (Chadwick, 2009). Indeed, reconciling the "on-field/off-field" dichotomy is not easy, although there is already partial recognition that on-field and off-field performances may be linked (e.g. Cornwell, Pruitt and Van Ness, 2001). At present, the performance measurement debate is seen as being one involving a tension between the effectiveness of on-field performances and the effectiveness of off-field financial performance. However, Chadwick (2009) argues that sport is not often as clear cut as this;

> "Sport is distinctive in the way that it binds together a broad, unique, socio-cultural, economic and commercial constituency. Sport often has a profound impact on communities, social cohesion, identity and self-esteem, health, lifestyles and, as is increasingly being accepted, the environment. As such, the need to establish and employ other measures of performance in sport is something that many commentators have yet to truly appreciate." (Chadwick, 2009: 195)

In the above quote Chadwick is actually referring to more intangible aspects such as environmental and social issues. However, in light of the increasing number of articles that attempt to analyse financial performance in football it is arguably a relevant point, albeit it in a different context. Establishing a model to analyse the financial performance of professional football clubs will undoubtedly cover more factors than solely financial ones. Unfortunately, it is becoming increasingly apparent that there is no generally accepted established framework in place at the present time with regards to which factors should be considered.

Subsequently, in light of the argument put forward by Chadwick (2009) that there is no agreed definition of the factors that contribute to performance measurement in professional sports teams, the review now focuses on how performance is measured within general business and contrasting industries. This review is undertaken thematically, beginning with ratio analysis before more statistical approaches such as DEA (Data Envelopment Analysis) are considered.

3.3.2.1 Ratio Analysis

Ratio analysis has often been used as a financial measurement tool (see Barker, 1995; Feng and Wang, 2000; Luna and Spicer, 2004; Ponikvar, Tajnikar and Pusnik, 2009; Romero Castro and Pineiro Chousa, 2006; Sueyoshi, 2005). None of these papers, however, are related to the professional sports industry in any way and instead cover a wide range of industries including healthcare and manufacturing. Whilst the industry context of these papers is less relevant to the thesis, there are similarities between the ratio analysis tools used by the authors. Feng and Wang (2000), Sueyoshi (2005) and Ponikvar, Tajnikar and Pusnik (2009) all incorporate similar areas of financial performance into their analysis, namely debt, liquidity and profitability. Such areas are defined in financial texts as being an important aspect of ratio analysis and financial performance (e.g. Wilson, 2011). Feng and Wang (2000) focus on performance evaluation for airlines including the consideration of financial ratios and state that the current ratio, debt ratio and return on assets are vitally important when conducting a financial analysis of the business. Feng and Wang (2000) challenge the conceptual framework that has previously been discussed with regards to measuring airline performance and make a classification based on five accounting elements; assets, debts, owner's equity, revenue and expense. Assets and the capital of the owners' equity are categorised as the input of financial factors, debts and expenses as the output of the financial factors and income/loss as the outcome of financial factors (Feng and Wang, 2000).

Both Sueyoshi (2005) and Ponikvar, Tajnikar and Pusnik (2009) follow a similar approach. Sueyoshi (2005) uses ratio analysis to examine the financial performance of the American power/energy industry and includes financial measures such as liquidity, activity (defined as total asset turnover calculated by dividing total revenue by total assets), leverage (or debt) and profitability as its main analysis technique. Similarly, Ponikvar, Tajnikar and Pusnik (2009) analyse the dependencies of several ratios of profitability, liquidity, current assets, and solvency, as well as the break-even point, revenue per employee, average costs, labour costs, capital costs, capacity utilisation and productivity when focusing on firm growth in the Slovenian manufacturing industry. To supplement the use of ratio analysis, both Sueyoshi (2005) and Ponikvar, Tajnikar and Pusnik (2009), use more detailed statistical approaches to data analysis. Sueyoshi

(2005) uses a data analysis technique that is more closely related to the DEA method (DEA is discussed in more detail later in this chapter). The amalgamation of both ratio analysis and DEA can be a highly productive one and DEA is often used to augment ratio analysis in academic papers. In light of the discussion surrounding the increasing difficulty of generalisation across industries and businesses, Ponikvar, Tajnikar and Pusnik (2009) offer an interesting conclusion. They state that managers should take into account the characteristics of their industry and their rivals when making business decisions in relation to ratio analysis and measures. For example, the most important ratios to consider could be ones that a competitor is using or ones that are recommended within the industry. This again proves that there is no set framework for financial analysis, even in a more general business context, and that the individual nature and characteristics of the industry in question must first be considered.

Luna and Spicer (2004) offer a model that is tailored specifically to the healthcare industry. Notwithstanding this, some of the factors put forward in their nine cell financial analysis model could be adapted to fit within the professional football industry. For example, elements utilised by Luna and Spicer (2004) such as unit price, productivity, mark-up ratio and quantity of resources could be re-categorised to make them more relevant to football clubs. Unit price could be classed as the cost of a ticket to a match or to the amount paid for a player. Mark-up ratios could relate to the price of players that have been bought and subsequently sold on and quantity of resources could be a measure of staff and asset value. Again, here, it appears that the choice of factors or variables is discretionary in relation to the context of the industry as previously argued by Ponikvar, Tajnikar and Pusnik (2009). In the case of Luna and Spicer (2004) it appears that economic performance is broadly based around a revenue-expense gap or profit and loss. This is a highly relevant issue in the professional football industry and is closely aligned to the main focus of UEFA's FFP regulations (see section 4.7; p.108), the concept of break-even. Admittedly, there are many others areas of financial performance which would need to be considered but it is interesting to note the overlap between variables used for analysis in contrasting industries and the fact that whilst there is no set framework in place with regards to performance measurement, there are ways in which previous approaches can be adapted to fit different industries.

A further differing approach is taken by Barker (1995) and Romero Castro and Pineiro Chousa (2006). Both allude to ratio analysis in certain areas but both also highlight that this is not the only solution in attempting to measure financial performance and that non-financial measures should also be considered. The paper by Barker (1995) is less relevant as the development of non-financial performance methods is entirely focused on the manufacturing chain. Romero Castro and Pineiro Chousa (2006) offer a more detailed analysis of how both financial and non-financial measures can be incorporated into a framework for the financial analysis of sustainability. Romero Castro and Pineiro Chousa (2006) purport that an integrated model is needed that takes into account the social, environmental and economic performances of a company and their expression using data that is both quantitative and qualitative, accounting and non-accounting, physical and monetary. In this paper an integrated framework for the financial analysis of the creation of sustainability-oriented value in companies is proposed (Romero Castro and Pineiro Chousa, 2006). It is noted that, in recent years, an increasing number of studies have examined the link between the financial performance of a company and its environmental and social performance, attempting to find a conceptual link between them (see e.g. Griffin and Mahon, 1997; Wagner and Schaltegger, 2003, 2004). However, Romero Castro and Pineiro Chousa (2006) argue that these studies are not sufficiently conclusive and one further question remains unanswered: which comes first - corporate social performance or financial performance? The paper looks to implement a new approach which utilises the balanced scorecard and the sustainability balanced scorecard in conjunction with ratio analysis to provide an integrated framework. Several authors have previously suggested the application of the balanced scorecard approach to sustainability (see e.g. Elkington, 1997).

In relation to ratio analysis Romero Castro and Pineiro Chousa (2006) argue that, essentially, most academics have given equal weight and value to all ratios, simply creating a 'shopping list' of calculations with no indications of which ratios may be the most important (Miller and Miller, 1991). The concept of weighting certain ratios higher than others has already been outlined in the paper by Andrikopoulos and Kaimenakis (2009) and discussion around weighting factors is provided later on in this chapter (see section 3.3.2.4; p.71). It is often argued that weighting factors is a more robust and scientific way to conduct analysis allowing for the more important variables to be assigned a higher weighting. Ultimately, Romero Castro and Pineiro Chousa (2006) argue that there is little consensus about the best way to evaluate a company's financial performance, although financial analysis, despite the criticism, has been traditionally considered a suitable tool for assessing a company's financial performance and economic situation. Romero Castro and Pineiro Chousa (2006) also consider the use of qualitative measures in their analysis but highlight that these are often difficult to define. Subsequently, the final aim of their model is to translate all the factors used into quantitative measures using qualitative approaches only as a substitute where necessary.

3.3.2.2 Data Envelopment Analysis (DEA)

Data Envelopment Analysis (DEA) has often been used to augment ratio analysis in academic papers (see Feroz, Kim and Raab, 2003; Yeh, 1996). DEA is a popular tool to analyse efficiency in many fields, such as banking (Hauner, 2005); financial services (Fiordelisi and Molyneux, 2004) and hospitals (Dervaux et al., 2004). DEA is a mathematical programming methodology that can be applied to assess the 'relative' efficiency of a variety of institutions using a variety of input and output data (Yeh, 1996). The application of a specific DEA model gives a single measure of technical efficiency when dealing with multiple inputs and multiple outputs and renders it unnecessary to assign pre-specified weights to either (Haas, 2003). The entity being studied is referred to as a decision making unit (DMU) and is then measured relative to all other DMUs under the restriction that all DMUs lie on or below the efficient frontier, in order for measures of relative efficiency to be obtained (Haas, 2003). Essentially, an input-orientated DEA model is employed in order to get the efficiency score assuming constant returns to scale which represents the global technical efficiency (TE) of a DMU. Furthermore, an input-orientated variable returns to scale model is used to find the corresponding efficiency score, representing local pure technical efficiency (PTE). Dissecting TE into PTE and scale efficiency outlines sources of inefficiency whether that be an inefficient transformation process of inputs into outputs or an inefficiently small scale of operation, or both (Haas, 2003). The term 'relative' is highly important in relation to the concept of DEA since an organisation identified by DEA as an efficient unit in a given data set may be deemed inefficient when compared to another set of data (Yeh, 1996). DEA is first used by constructing a relative ratio consisting of total weighted outputs to total weighted inputs for each organisation. The relatively 'most efficient' units become the 'efficient frontier', and the degree of the inefficiencies of the other units relative to the efficient frontier are then determined when a mathematical algorithm is used to calculate the DEA efficiency score for each unit (see Yeh, 1996 for a practical example using these algorithms).

DEA has been used to measure business performance more generally (see Adams, Toole and Krause, 1993; Dah-Kwei Liou and Smith, 2007; Devinney, Yip and Johnson, 2010; Gapenski, 1996) and also frequently in professional team sports (see Ascari and Gagnepain, 2007; Barros, Assaf and Sa-Earp, 2010; Carmichael, Thomas and Ward, 2000; Einolf, 2004; Garcia-Sanchez, 2007; Gonzalez-Gomez and Picazo-Tadeo, 2010; Guzman, 2006; Guzman and Morrow, 2007; Haas, Kocher and Sutter, 2004). All of these involve using a number of different inputs and outputs such as points obtained, attendance figures, player salaries and turnover figures in order to compute an overall efficiency score of both individual clubs and leagues. DEA analysis has proven to be a very useful tool in computing efficiency scores and the examples above cover a wide array of sports and leagues including professional football in England, Germany, Spain and Brazil and Major League Baseball (MLB) and the National Football League (NFL) in America. DEA analysis is useful to calculate efficiency based on a number of different input and output variables. Firstly, the papers that focus on a more general business context are considered before examples of how DEA has been applied to professional team sports, in this case professional football, are analysed.

Owing to the fact that DEA involves selecting input and output variables that have to be industry or firm specific it is very difficult to relate the articles that focus on general business performance directly to the professional football industry as most consider factors related towards employee performance and shareholder wealth. Furthermore the paper by Dah-Kwei Liou and Smith (2007) examines the relationship between corporate failure and macroeconomic factors, both of which are beyond the scope of the thesis. The authors do, however, note an interesting point in relation to financial analysis and state that, similarly to the section on ratio analysis above, profitability, gearing, liquidity and working capital can provide an excellent indication of financial risk and a measure of relative financial performance (Dah-Kwei Liou and Smith, 2007). Further comparisons with the analysis from the ratio analysis section can be found in Devinney, Yip and Johnson (2010) who use frontier analysis and DEA to evaluate company performance. The authors here argue that there is no clear agreement as to which financial measures are most appropriate as a basis for understanding firm performance. As one would expect, there are many different definitions and descriptions as to what firm performance is. Performance could be measured financially or in relation to customer satisfaction or a whole range of other factors depending on the business context and the objectives of assessing an area of performance measurement. Devinney, Yip and Johnson (2010) state that performance is in fact multi-dimensional, meaning that it is composed of different theoretical and empirical components that may or may not be related.

Gapenski (1996) and Adams, Toole and Krause (1993) also utilise DEA analysis in a non-sporting industry. The latter focuses on predictive performance evaluation for large retail firms and the model puts forward a predicted level of store performance which is benchmarked against actual store performance to provide a measure of managerial performance (Adams, Toole and Krause, 1993). It is, however, very difficult to attempt to use predictive measures of performance without having internal access to the business and its future plans and strategies. Contrastingly, Gapenski (1996) offers a further method of analysis which focuses on the concepts of market value added (MVA) and economic value added (EVA) to measure financial performance. Both of these concepts take into account the cost of equity capital and MVA measures specifically how shareholder wealth is increased (Gapenski, 1996). It is again very difficult to apply or relate this paper to professional football as the market value of a football club is very difficult to define owing to the way in which certain assets are treated in football club accounts. As UEFA state;

> "Some of the principal assets of a club, such as loyal supporter base, reputation/brand, membership/access rights to lucrative competitions, and home-grown players, are not included within balance sheet assets since they are extremely difficult to value, despite them having unquestionable value. These unvalued assets tend to be greater for larger clubs". (sourced from Swiss Ramble, 2012: 1)

This is highlighted when a football club is sold. Invariably, the purchaser pays a higher price than the fair value in the accounts and the difference is booked as an asset known as goodwill. By way of an example, the balance sheet of Manchester United, bought by the Glazer family in 2005, included £421m of goodwill. Furthermore, the contrasting elements of ownership structure at professional football clubs and the fact that maximising shareholder wealth is not considered to be one of the key motives for a professional football club means that it is difficult to evaluate the paper by Gapenski (1996) in relation to professional team sports.

The majority of the literature that focuses on DEA and efficiency in professional football (see Guzman, 2006; Guzman and Morrow, 2007) mirror the arguments above, highlighting the contrasting nature of the professional football industry in relation to other industries. Indeed, Guzman (2006) proposes that professional football clubs are special businesses since their performance is derived from two different objectives;

success on the field and success in business performance. Morrow (2003; cited in Guzman and Morrow, 2007) concurs, agreeing in the first instance that football clubs are unusual businesses. Although constituted as limited liability companies and hence ostensibly operating within the same legal and governance framework as companies in other areas of economic activity, they exist in a peculiar emotional and social space, where unusually strong relationships often exist between the company and stakeholders. Unsurprisingly, these relationships can impinge on business behaviour and decision making. For example, the objectives of football clubs, in particular the desire for on-field success, are likely to have implications for business decision making (Morrow, 2003). In addition to this, and perhaps more fundamentally, the presence of non-financial objectives also raises the question of how to measure the performance of football clubs (Guzman and Morrow, 2007). Owing to the fact that one of the authors contributed to both papers (Guzman) there are distinct similarities between the two papers. The first (Guzman, 2006) measures efficiency and sustainable growth in Spanish football teams using DEA whilst the latter (Guzman and Morrow, 2007) produces the same methodology focusing instead on the EPL. It is this paper, therefore, that the subsequent analysis will focus on. In any case, both papers use similar input and output variables when constructing their respective model so very little will be gained from focusing on the two papers in isolation.

The inputs selected for analysis are various expenses of football clubs derived from the financial statements (Guzman and Morrow, 2007). In common with previous papers (see for example, Haas, 2003; Haas, Kocher and Sutter, 2004) these are staff costs, directors' remuneration and general or other operating expenses of each club. There are a number of issues, however, with regards to the definition of directors' remuneration, some of which are identified by the authors themselves. The figure for directors' remuneration is taken from the financial statements of the club where the club is a single company or from the accounts of the holding company where the football club is part of a group of companies. Firstly, however, it is not possible to establish whether all directors' remuneration is in respect of football-related activities, and, secondly, the remuneration may be understated where someone is a director of a football club subsidiary but is not a director of the parent or holding company (Guzman and Morrow, 2007). There is also a further critique in relation to the decision to use figures taken from both the company and holding company accounts. This affects the consistency of the figures being used for analysis and is a limitation of the study. A way in which greater consistency could have been obtained would be to use either the club accounts or parent company accounts (see Wilson, Plumley and Ramchandani, 2013 for an example of this).

Despite using a number of inputs, Guzman and Morrow (2007) selected only two output variables; points won in a season and total revenue for the resulting financial year. This is due to the lagged effect of the financial performance being a product of how the club has performed on the pitch during the previous season. For example, qualification for the UEFA Champions League would mean that a club receives a greater income, which would be realised in next year's accounts. The authors note that some additional output variables may be included, but it is argued that the outputs selected are sufficient to obtain a measure of a club's efficiency (Haas, 2003). Though the approach to analysis is different, the same issues with consistency and generalisations are found in the paper by Guzman and Morrow as in other papers that utilise this method. DEA models are normally based upon variables deemed necessary by the researchers, further underlining the points made earlier that there is no set model or methodological tool to follow when conducting financial analysis. Subsequently, it becomes even more difficult to apply a general model to an industry as diverse as football. Football at club level has changed markedly in the last decade or so. Indisputably, major football clubs are now complex businesses, intrinsically concerned with financial matters. This can be attributed to a number of factors (covered in chapter 4) including the impact of television, the status of players and changes in the ownership structure and governance of clubs; yet football clubs remain unusual businesses, judged by what happens on the field as well as by more conventional measures of business performance (Guzman and Morrow, 2007). Whilst the statistical formulas applied in DEA are scientific, it appears that the way in which the variables are chosen is not. There is an apparent gap in the literature here in relation to devising more scientific models in the first instance before focusing on the analysis of the data inputted into a model.

3.3.2.3Econometric Stochastic Frontier Model

This econometric or parametric approach is also a measurement of efficiency, but one that differs entirely from DEA (or non-parametric). Unlike the econometric stochastic frontier approach, DEA permits the use of multiple inputs and outputs but does not impose any functional form on the data; neither does it make distributional assumptions for the inefficiency term. Both methods assume that the production function of the fully efficient decision unit is known. In practice, this is not always the case and it is in relation to this that Barros and Leach (2006a) chose to analyse the performance of teams in the EPL using an econometric frontier model. They identified three distinct advantages to using such a model. The first was that there are a number of well-developed statistical tests to investigate the validity of the model specification - tests of significance for the inclusion or exclusion of factors, or for the functional form. A further advantage of the model is that if a variable that is not relevant is included, it will have a low weighting in the calculation of the scores, so its impact is likely to be negligible. This differs from DEA, where weights for the variable are usually unconstrained. The third advantage is that it permits the decomposition of deviations from efficient levels between so-called noise (stochastic shocks) and pure inefficiency, whilst DEA would class the whole deviation as inefficiency (Barros and Leach, 2006a). Barros and Garcia-del-Barrio (2008) also produced an analysis of the technical efficiency of English football by using a random frontier model combining the analysis of sport and financial data. The random frontier model allows for heterogeneity in data and is considered the most promising model upon which to analyse cost functions (Greene, 2003, 2004, 2005). The reason for this is twofold. Firstly, it allows for the error term to combine different statistical distributions and secondly it uses random parameters, that is parameters that describe factors not linked to observed features on the cost function (Barros and Garcia-del-Barrio, 2008).

Barros and Garcia-del-Barrio (2008) compared a homogenous frontier model, an innovative random frontier model and a random translog model using three input prices and three outputs (sales, points and attendance) to measure the efficiency of EPL clubs from 1998/99 to 2003/04. They concluded that the outcomes of the heterogeneous frontier model are more intuitive than those of the homogeneous model and that the main policy implication of the paper is that heterogeneity must be considered a major issue in the EPL and that the authorities should take this into account by implementing policies by cluster with the aim of regulating investment, points or attendance (Barros and Garcia-del-Barrio, 2008). The aim of regulating investment is something that UEFA are attempting to implement through FFP although it is difficult to see how points and attendance could be regulated. The EPL is diverse in nature and whilst clubs are classed as direct competitors in relation to the league format, there is certainly an argument that they are not comparable in relation to their respective fan bases, historical background and their objectives both on and off the pitch.

3.3.2.4 Weighting Factors

As previously stated by Romero Castro and Pineiro Chousa (2006) it has been commonplace for researchers to assign an equal weight to all ratios considered in the analysis. However, this could be argued as being too simplistic and the opportunity to uncover more purposeful results ultimately comes from the application of weighting each ratio or variable in terms of its importance. For example, in professional football a critical issue in relation to finances at the present time is the UEFA FFP regulations and the concept of break-even alongside reducing wage costs. As such, if financial ratio analysis was used here to examine football club accounts then the ratios for profitability and wages to turnover could arguably be given a greater weighting due to them being the most relevant issues in relation to the regulations at the present time. This links to the previous chapter that focused on EPL clubs as revenue generators and the statement made by Beech (2010) that the main cost that a club has to pay is its players' wages. The revenue of a club minus its expenditure will principally lead to break-even and these could be two of the most heavily weighted variables in terms of their importance in light of UEFA FFP.

In relation to the literature review, three articles consider the concept of weighting factors when applying financial analysis to an organisation (see Fadhil Abidali and Harris, 1995; Ittner, Larcker and Meyer, 2003; Lee, Kwak and Han, 1995). All of these papers argue that non-financial measures are just as important as financial measures in certain cases and argue for more than just a balance sheet approach. The paper by Lee, Kwak and Han (1995) looks to develop a comprehensive performance management system that has frustrated many managers in the past and the focus of the paper is on employee performance and internal performance measurement. The theoretical background to the study includes the concept of Analytical Hierarchical Performance (AHP), a theory of measurement that has been extensively applied in modelling the human judgement process (for further information on AHP see Lee, 1993; Muralidhar, Santhanam and Wilson, 1990; Zahedi, 1986). Lee, Kwak and Han (1995) assign weighting factors as part of their methodology although the downside to this is that they are computed by a statistical software package that is only relevant to the theory surrounding AHP.

Similarly, Fadhil Abidali and Harris (1995) offer some interesting discussion points around the concept of weighting factors, although the data analysis used is more closely related to DEA and predicting corporate collapse. The paper uses Z-score analysis but also applies a weighting aspect as a secondary method. The concept behind the A-score is based on the belief that if a company is in financial difficulty the reason generally relates to inadequate management ability and errors perpetrated earlier. The A-score is designed to address this aspect of failure prediction. Fadhil Abidali and Harris (1995) use this A-score against the Z-score for comparative purposes. Fadhil Abidali and Harris (1995) argue that some form of non-finance based analysis is also needed to classify a company at risk of failure (Fadhil Abidali and Harris, 1995). The non-financial measures raised in this paper are highly qualitative and difficult to measure, as previous authors have also discovered (see Romero Castro and Pineiro Chousa, 2006). However, this does not mean that qualitative information should be ignored, rather that the author must find a way of justifying their inclusion based on sound methodological principles. Fadhil Abidali and Harris (1995) combatted this by assigning weighting measures that were based on the results of a questionnaire that was distributed to companies to ascertain their views on the most important factors. Another way in which this could have been done would have been to conduct interviews with the directors of the companies following a similar process.

Ittner, Larcker and Meyer (2003) also consider this issue in detail. Again, the context in which the study is set, focusing on bonus payments to employees and the use of subjective quantitative and non-quantitative factors in determining this, is less relevant although the general discussion around weighting performance measures offers some interesting insights. Firstly, Ittner, Larcker and Meyer (2003) note that the potential difficulties with 'weighting' factors include determining the appropriate weights to place on each measure. In an attempt to analyse this further the paper considers the balanced scorecard approach put forward by Kaplan and Norton (1996). Since improved financial results are the ultimate goal of balanced scorecard systems, outcome-effect studies also suggest that financial results will be weighted more heavily than non-financial results. In relation to the paper by Ittner, Larcker and Meyer (2003) and the literature that the paper covers, the authors provide no theoretical explanation in the way in which they have weighted certain factors higher than others. This could be partly due to the fact that studies into direct experiments on the use of financial and non-financial measures on employee performance are inconclusive (Ittner, Larcker and Meyer, 2003). In the field of organisational psychology the literature has long held the argument that greater weight should be placed on performance measures that are more reliable. According to this literature, subjective, qualitative performance assessments are often less accurate and reliable than more objective, quantitative measures (Ittner, Larcker and Meyer, 2003). This argument, albeit from a different theoretical background, is reflected in the aims and objectives of the thesis where qualitative data will be used sparingly, as a supplement to more objective, quantifiable data. In comparison with the discussion surrounding the application of financial ratios, it appears that the same issues arise with the application of weighting factors. There is no definitive structure to follow and no guidelines as to why factors are weighted as they are, certainly not in relation to the literature outlined above. Often it is at the discretion of the authors as to which factors they choose and what weights are assigned to different factors, although there are methods which can aid this process such as the questionnaire approach adopted by Fadhil Abidali and Harris (1995) which assigned weighting factors based on the results of a questionnaire distributed to companies to determine their views on the most important factors.

3.3.2.5 Key Issues

It is evident that there are many different types of performance measurement and that each method has its respective strengths and weaknesses. Ratio analysis appears to be the most commonly used form of analysis in relation to the literature covered in this section and a substantial amount of academic papers use ratio analysis to measure financial performance. This is often attributed to the relative ease in which ratio analysis can be applied and its reliability and potential for replication owing to there being a structured framework to follow (see Wilson, 2011 for an example of a framework for ratio analysis). Other more statistical techniques such as DEA are often used to augment ratio analysis to provide further analysis. However, it is apparent from the literature that the choice of ratios, or the choice of inputs and outputs for DEA, is largely down to the discretion of the author rather than a vigorous scientific protocol. There is, at the present time, no set definition as to which ratios or variables to use. In actual fact, it appears that authors instead opt for certain ratios or variables that fit best within the context of the study and the industry that the business operates in. This leads, inevitably to the concept of benchmarking within industries and the literature suggests that organisations should benchmark against their direct competitors. However, in the context of sport, and more specifically professional football, this is difficult to replicate. For example, both Manchester United and Burnley compete against each other in the EPL (correct at the beginning of the 2014/15 season) yet it is unrealistic that the two clubs would be in direct competition in a financial sense. Furthermore, despite the importance of benchmarking there is little literature about benchmarking in professional team sports or indeed football.

What cannot be understated here is that sport is different from other products and industry sectors (Chadwick, 2009). There is a performance measurement objective of balance between on-field success and business performance that makes sport so unique and different from other industries. At present, the performance measurement debate is seen as being one involving a tension between the effectiveness of on-field performances and the effectiveness of off-field financial performance (Chadwick, 2009). Subsequently, it would be naïve to suggest that a thesis concerned with financial performance in football will not have to consider on-field performance. Indeed, as is evident in the literature, other academics have focused on incorporating non-financial measures to link to financial performance. Again, however, the inclusion of factors is ultimately at the author's discretion. Whilst financial ratios can be justified in academic literature, non-financial indicators cannot. Introducing an alternative method to selecting on-field performance indicators in sport, as this thesis does, contributes to the body of knowledge on this subject as opposed to the author making the final decision as to which factors are included. This has previously been considered in business performance measurement through the distribution of a questionnaire to ascertain the views of the main people involved in the decision making process (Fadhil Abidali and Harris, 1995).

The issue of weighting factors is also an important consideration in relation to financial performance. Previously it has been commonplace for researchers to assign equal weights to all ratios considered in the analysis as noted by Romero Castro and Pineiro Chousa (2006). A more robust and scientific technique would be to weight factors of significant importance higher than others. However, there is no set definition for assigning weighting factors and, once again, it is at the discretion of the authors what weightings are set. One way to justify the weightings of factors would be to use a questionnaire or interview based approach similar to the techniques employed by Fadhil Abidali and Harris (1995). However, this method is still subjective as it takes into account the opinions of different people, which will not always be the same. Consequently, a more scientific based approach to applying weighting factors is required. An example of this is a system whereby the assigned weighting percentage reflects the number of elements in a certain section (i.e. if there are four elements in a section and the weighting of the total factors sums to 1, each element would be assigned a weighting of 0.25 if all things were equal). Such a weighting system is indicative of the approach used by the World Economic Forum when ranking countries in terms of their global competiveness across a number of different performance areas (World Economic Forum, 2014).

3.3.3 The "Peculiar Economics" of Professional Team Sport

The title of this section uses the term 'peculiar economics' developed by authors in the field such as Gratton and Taylor (2000) and Downward and Dawson (2000) who have analysed the structure of professional team sports in both Europe and North America. The economic theory of professional team sports and professional team leagues is also discussed in more detail in chapter 4 although a number of papers highlighted in the systematic review discuss similar concepts.

Some of these articles focused on comparing the European model of an open system league with the North American model of a closed system league (see Andreff, 2011) whilst others compare open and closed labour markets on a more general, wide-ranging scale (see Chang and Sanders, 2009; Kesenne, 2007; Vrooman, 2007). Others focus on winning percentages of teams and match attendance at games in an attempt to define profitability and financial performance (see Nourayi, 2006; Pinnuck and Potter, 2006) whilst others focus more generally on the economics of professional team sports (see Szymanski, 2003b; Zimbalist, 2003). Consequently, almost every single paper grouped into this category makes reference to the concept of profit versus utility or 'win' maximisation and the issues surrounding competitive balance within league structures (see Garcia-del-Barrio and Szymanski, 2009; Pawlowski, Breuer and Hovemann, 2010).

The argument surrounding the motives of new foreign investors coming into the English game (further discussed in section 4.6.1; p.107) with relation to profit maximisation and financial return (for example the Glazer family and Manchester United) is also put forward by Garcia-del-Barrio and Szymanski (2009) who make reference to the number of sport franchise owners from North America who have recently acquired control of EPL clubs (the aforementioned Glazer family at Manchester United; Randy Lerner at Aston Villa; Tom Hicks and George Gillett previously at Liverpool and now John W. Henry). The authors question whether profit maximisers could successfully invade a population of win maximisers (and vice versa). It certainly seems as though this could be a possibility, though historically the European open market model has been more closely related to utility maximisation or win maximisation operating under a soft budget constraint (Andreff, 2011). The analysis of sport as a business ultimately returns as many questions as it does answers owing to its diverse nature, the number of different ownership structures and governance regulations that clubs operate under and the disclosure of financial information from individual clubs. Unlike businesses in other industries, professional sports teams in a given league both compete against and co-operate with each other. In theory, the success of a league is, to some extent, affected by the degree of uncertainty of outcome of its contests and its seasonal competitions, or, more simply, the degree of balance among its teams.

Despite the arguments made in previous literature surrounding profit versus win maximisation, the presumption that club owners do not attempt to maximise profit is also found in the literature on US sporting leagues most notably in relation to the business of Baseball. A common citation in relation to this, although it predates the systematic review inclusion dates in its original date, is the claim of Markham and Teplitz (1981) that some owners 'satisfice', that is, they seek 'good enough' performance - analogous to utility maximisation subject to a minimum profit constraint or, as the English football report term it, 'playing success while remaining solvent' (Markham and Teplitz, 1981; 26). The most common formalisation of this approach is to assume win maximisation subject to a break-even constraint. However, the majority of major football clubs across Europe have struggled to break-even in previous years, something which has been brought to light by the introduction of UEFA's FFP regulations. Furthermore, American economists have expressed some scepticism about the feasibility of identifying whether teams are profit maximisers. Fort and Quirk (2004) suggest that without detailed information on revenue functions it is hard to make comparisons about profit or win maximising choices, while Zimbalist (2003) finds little convincing evidence distinguishing profit maximising behaviour from any other and concludes that 'owners maximise global, long-term returns' (Zimbalist, 2003; 510). Consequently, many of the empirical studies that exist, and certainly those highlighted here, discuss factors more closely related to sporting performance (win percentage, match attendance etc.) to attempt to explain the concept of profit and win maximisation (see Garcia-del-Barrio and Szymanski, 2009; Nourayi, 2006; Pinnuck and Potter, 2006). These authors provide an indication as to some of the important off-field factors that a professional football club could use to measure performance and mirror similar approaches that have been undertaken in previous studies outlined in this chapter. However, none of these authors consider financial performance factors in their analysis.

There has also been a further debate in recent years surrounding competitive balance and the proposal to bring the European model of professional team sports closer to the American model. Vrooman (2007) suggests that there is a growing consensus that the introduction of a breakaway European Super League (ESL) is the open-market equilibrium solution (Hoehn and Szymanski, 1999; Kesenne, 2007; Szymanski, 2007) owing to the fact that zero-profit maximising and soft budget constraints have driven European football clubs to the brink of insolvency and polarized competition throughout Europe (Vrooman, 2007). It is argued that the ESL is an inevitable consequence of a unified European open market. Similarly, Pawlowski, Breuer, Hovemann (2010) argue that the modification of the Champions League pay-out system has led to a decrease in competitive balance in the five top European Leagues (England, Spain, Italy, Germany, France) and they too suggest, at least, a redistribution of revenues generated by Pan-European competitions within and across leagues. However, Carmichael, McHale and Thomas (2010) argue that an ESL would not work in practice as it would arguably require new regulations and constraints regarding matters such as salary caps, squad sizes, transfer markets and player mobility, which Europe's major leagues have either relinquished or rejected. An interesting caveat to this is that Ross and Szymanski (2002, 2005) have considered the reverse of this, discussing introducing European-style promotion and relegation into American sports.

The idea of an ESL is not new to the pragmatic business side of European football or to sports economy theory (see Hoehn and Szymanski, 1999) and several proposals have been raised for the formation of an ESL and a lesser Atlantic league which included the best performing clubs from Scotland, Holland, Portugal, Belgium, Norway, Denmark and Sweden. One of the main advantages of a closed European league to club owners would be revenue and cost certainty coupled with less risk from the threat of relegation or missing out on European qualification. Failure to realise and adapt for risk is the major cause for the financial collapse of sports clubs throughout Europe (Vrooman, 2007). However, whilst the introduction of an ESL has been discussed in recent years, nothing has yet been done about it and there is an argument behind UEFA's Financial Fair Play regulations that clubs can adapt to risk (as well as a number of other things) through better financial management regardless of what league they compete in. There is a suggestion here, however, that UEFA are also attempting to protect its flagship European competition (the UEFA Champions League) with their arguments surrounding FFP. This competition would be most at risk were the biggest clubs in

Europe to breakaway and form a ESL and the concept remains firmly on the agenda of Europe's leading clubs with the chairman of Galatasary FC stating in October 2013 that a breakaway league has to happen in the next 10 years to protect the European game and that it could be a reality in as little as 5 years (Rumsby, 2013).

3.3.3.1 Broadcasting, Attendance and Market Position in Professional Football

A further cluster of articles have been classified under the general headings of broadcasting, attendance and market position and many have inherent links to the previous section on the 'peculiar economics' of professional team sports. Some of these articles focus directly on broadcasting and matchday attendances (see Evens and Lefever, 2011; Forrest, Simmons and Szymanski, 2004; Noll, 2007; Robertson, 2004) whilst others focus more on the market size, position and orientation of the football club and the subsequent effect on attendance and financial performance (Benkraiem, Louhichi, Marques, 2009; Buraimo, Forrest and Simmons, 2007; Buraimo and Simmons, 2009; Carmichael, McHale and Thomas, 2010; Ozawa, Cross and Henderson, 2004).

The papers that focus on broadcasting and attendance are of less relevance to the thesis as very few financial indicators were mentioned throughout these studies. Furthermore, the concept of broadcasting and its effect on European and, more importantly, English football is discussed in greater detail in section 4.5.2 (p.103). As much as there are differences in the structure of professional team sports in Europe and North America, so too are there differences between the nature of broadcasting rights within these leagues. Broadcasting rights are more open within European sport whilst in America television revenue tends to be more centralised. Noll (2007) argues that consumers are better off if television is competitive and leagues do not centralise rights sales. The centralisation of rights sales does not improve competitive balance or benefit financially weak teams. Similarly, Forrest, Simmons and Szymanski (2004) argue that broadcasting has a negligible effect on attendance for the period 1992-2001 in the EPL and that the reluctance by clubs to broadcast more matches during that period was not over a concern about matchday attendances but rather over a failure of the cartel (the EPL) to reach agreement on compensation for individual teams. However, the date of this study needs to be considered and a more up to date picture needs to be provided considering the increasing escalation of broadcasting deals in recent years particularly within the EPL (see section 4.5.2; p.103).

Noll (2007) states that television has vastly increased the revenues of the most popular sports and that most likely, increased television exposure has spurred growth in live attendance at matches and other sources of revenue as well (see Allan, 2004; Baimbridge, Cameron and Dawson, 1995, 1996; Forrest, Simmons and Szymanski, 2004; Forrest, Simmons and Buraimo, 2005; Forrest and Simmons, 2006; Garcia and Rodriguez, 2002; Kuypers, 1996; Patton and Cooke, 2005; Price and Sen, 2003). The upshot of this increase has been to increase player salaries which has a direct link to the thesis as broadcasting will directly affect the turnover of the club which will affect investment in players, wages and salaries and financial performance. However, the paper by Noll (2007), among others, focuses more generally on broadcasting and the supply and demand aspect of broadcasting primarily linked to match attendance with only passing reference to financial performance.

Similarly, the majority of articles that relate to market size and orientation offer little in terms of financial analysis. Two in particular (Benkraiem, Louhichi, Marques, 2009; Ozawa, Cross and Henderson, 2004) provide conflicting statements that do not relate to the previous literature highlighting the structure of professional team sports. The latter states that many football clubs are now listed on the stock exchange market in order to meet their financing needs. However, the trend within European, and certainly within English football, has been a move away from the stock market model of ownership to clubs being run as privately owned entities (see section 4.6; p.105). A common recurring theme has been the exploration of relationships between playing performance and playing success and the literature surrounding this is extensive (e.g., most recently, Barros and Leach, 2006a, b; Carmichael, Thomas and Ward, 2000, 2001; Espitier-Escuer and Garcia-Cebrian, 2004; Gerrard, 2006; Hofler and Payne, 2006; Hofler and Payne, 1998). Output in these examples is traditionally measured by indicators such as league position, win rates, points achieved, or, in association football, goals or goal difference. Teams' playing performance is measured by indicators of players' skills and abilities (relevant to opponents) together with characteristics such as age and experience. A second strand of literature does include some financial factors, most prominently the relationship between wage/salary expenditure and sporting success (the win-wage relationship) (e.g., DeBrock, Hendricks and Koenker, 2004; Dobson and Goddard, 2004; Forrest and Simmons, 2004; Hall, Szymanski and Zimbalist, 2002; Jewell and Molina, 2004; Szymanski and Kuypers, 1999; Szymanski and Smith, 1997). These also consider the debate surrounding competitive balance and also employ DEA which has been covered earlier in this chapter (see section 3.3.2.2; p.65).

3.3.3.2 Key Issues

The debate surrounding profit and utility maximisation is evident throughout much of the literature relating to the economics of professional team sports. It is also evident that, at the present time, there is no general consensus as to which concept teams and leagues attempt to subscribe to. Pragmatically, it is reasonable to suggest the point by Andreff (2011) that the European open market model has been more closely related to utility or win maximisation operating under a soft budget constraint is probably nearest to the truth. This, however, has wider reaching implications for the European, and English, game as a whole. The challenge that football clubs now face, in light of UEFA FFP, is to no longer operate under a soft budget constraint. Instead, clubs must attempt to maintain win maximisation subject to a break-even constraint.

In relation to the issues surrounding performance measurement, this topic differs slightly in the sense that financial performance measurement has not yet been used extensively to analyse these two concepts. In this section there are many articles that explore the relationship between playing performance and playing success. This is slightly different to the debate surrounding financial versus non-financial measures. Some literature does involve financial factors but these papers are few and far between and are largely consigned to dealing exclusively with the relationship between wage/salary expenditure and sporting success (the win-wage relationship) (e.g., DeBrock, Hendricks and Koenker, 2004; Dobson and Goddard, 2004; Forrest and Simmons, 2004; Hall, Szymanski and Zimbalist, 2002; Jewell and Molina, 2004; Szymanski and Kuypers, 1999; Szymanski and Smith, 1997). A potential way to expand this knowledge base further would be to consider the relationship between profit and utility maximisation with reference to a significantly higher number of factors, weighted in terms of their importance, from both financial and sporting perspectives. It has already been outlined by Andreff (2011) that both of these concepts are impacted on by the number of different ownership structures and governance regulations that clubs operate under and the disclosure of financial information from individual clubs. The next section of chapter 3 discusses governance and ownership structure in greater detail.

3.3.4 Governance and Ownership Structure in Professional Football

The majority of the literature covered in this section is directly related to the governance aspect of professional football, except the paper written by Short (1994) which considers ownership structure and financial performance more generally by reviewing and critically evaluating the literature that empirically analyses the effects of ownership and control structures on both the financial structure and performance of the firm (Short, 1994). Short (1994) concludes that firm performance and value is dependent on the financial structure of the firm, yet this is rather simplistic and offers no credible insight as to what is meant by performance or indeed financial structure. Overall, although the issues surrounding the potential effects of ownership and control structures on financial structure and firm performance have been debated for several decades, a consensus has not yet been reached regarding the importance of ownership and control structure (Short, 1994). Arguably, despite this paper being nearly twenty years old, not a lot has changed in the present day, particularly with reference to professional football clubs. Indeed, Wilson, Plumley and Ramchandani (2013) found ownership structure of EPL clubs from 2000-2010 to have little bearing on financial performance, concluding that no one ownership structure is better than another. It is also difficult to contextualise the paper by Short (1994) in relation to football and the EPL as the focus of the paper is largely on the control of the firm and who owns it. The ownership of EPL clubs in particular is hardly transparent and attempting to categorise who owns the club to be able to bracket it into some form of control type becomes increasingly difficult without internal access to the club.

One interesting comment that Short (1994) does make is the identification of shareholders and their importance in relation to the financial performance of a firm. Similarly, Senaux (2008) also considers a stakeholder approach, this time to football club governance, utilising practical examples from professional football clubs in France. Senaux (2008) focuses specifically on corporate governance and highlights two main models; the shareholder model - which emphasises the shareholder versus manager relationship - and the stakeholder model - which takes into account the different stakeholders of the firm. Senaux (2008) focuses on the latter model, firstly outlining the concept of 'stakeholder' before identifying the main types of stakeholders relevant in French football and to French football clubs. Senaux (2008) also makes reference to the differences between the European and American model arguing that it is usually admitted that professional football clubs in Europe are utility maximisers, in contrast to US professional franchises which are usually organised to maximise their economic performance. Behind this concept of utility lies a complex set of goals, not always fully compatible, shared and defended by the various stakeholders of clubs (Senaux, 2008).

Stakeholders that are deemed relevant to French football clubs include shareholders, players, leagues and federations, local authorities, support associations, spectators, supporters, television and other sponsors. Senaux (2008) notes that each of these different groups will have their own objectives which are often sporting and financial, although political values cannot be ruled out. In conclusion, numerous stakeholders with varied goals are present and power games are significant, especially in the European sporting model (Senaux, 2008). The difficult part is outlining which stakeholders really count and to whom managers should pay attention. Senaux (2008) concluded that it appeared that, among these stakeholders, players were probably those whose individual interests are best taken into account. Nevertheless, the overly high attention paid to players is often at the expense of other stakeholders who are quite significant though less visible (Senaux, 2008). Subsequently, it becomes difficult to contextualise a stakeholder approach to financial analysis. The only stakeholders mentioned in a financial capacity are shareholders and again here the lack of transparency in accounting standards and practices means that shareholders at different clubs will have different business motives and objectives, making like-for-like comparisons increasingly difficult to produce. It has already been well documented that different clubs in professional team sports operate under different strategic business objectives, often relative to their ownership structure, and that attempting to create a balance between the two is becoming increasingly difficult in relation to the amount of money that is now present in the modern day sports era.

De Heij, Vermeulen and Teunter (2006) examine this relationship by considering strategic objectives and actions and the implications for financial performance. Their aim is to discover (if and) what kind of strategic actions European football clubs conduct and whether these actions affect their financial performance and their subsequent competitive position. De Heij, Vermeulen and Teunter (2006) measure the context, content and process dimensions of strategic renewal relative to financial performance and consider the individual strategic actions undertaken by eight football clubs during the period 1995-2002. Results showed that undertaking strategic actions does contribute to the financial performance of firms and that in the European football industry where some kind of 'competitive balance' is required, strategic actions positively contribute to financial performance (De Heij, Vermeulen and Teunter, 2006). Again, it must be noted here that the term 'competitive balance' is rather abstract within professional team sports. Normally, in general business, it is assumed that organisations need to outperform their competitors and that the output of competitors negatively affects the ability of a producer to sell its output and generate profits. Contrastingly, in sports contests each producer requires the input of its competitors in order to make a product at all (Szymanski, 2001). De Heij, Vermeulen and Teunter (2006) consider three independent variables related to strategic actions; external (collaboration with other external business), exploration (expanding on current activities in relation to geographic scope) and intensity (the number of strategic actions per season). The dependent variable is financial performance (measured by seasonal turnover) and the control variable is sporting performance (incorporating the international club ranking, country of origin, age and number of employees).

De Heij, Vermeulen and Teunter (2006) found that, for the eight clubs studied, external actions lead to higher financial performance than internal actions and exploration and expanding a club's repertoire of activities is more beneficial than current activities. Intensity, however, does not have a significant positive effect on financial performance. De Heij, Vermeulen and Tuenter (2006) offer an insight into how the strategic business plans of a company can affect financial performance within a professional football club and it is reasonable to suggest that in a different industry, one that is more dependent on financial performance, the relationship would be stronger. The study is not without its limitations however and some of these are highlighted by the authors themselves. The problem of causality is present throughout and this issue has been considered in previous chapters. For example, does financial performance lead to sporting performance, is it the other way around, or even both? The authors suggest a more advanced multivariate approach to future research studies of this nature. Furthermore, the authors note that the organisations studied were limited to one specific industry and that these eight clubs are not representative of the entire industry or any other external industry (De Heij, Vermeulen and Teunter, 2006).

A further critique is the selection of the clubs used for the study (AFC Ajax, Feyneoord Rotterdam, PSV Eindhoven, Arsenal, Manchester United, Chelsea, Celtic and Glasgow Rangers). There is no methodological discussion as to why these clubs have been selected other than the fact that they are successful within the leagues they compete in. Consequently, these clubs arguably have greater capacity to generate more strategic actions and expand further into other geographical locations because of the size and capability of the organisations. An interesting comparison could have been made with other clubs within those leagues who are less successful on the pitch to provide a more comparative study. The use of seasonal turnover as the only measure is also questionable. There are a wide range of financial factors which could contribute to the overall financial performance of an organisation and it would be more beneficial to cover a number of these factors as opposed to just one. For example, Wilson (2011) highlights five key areas of financial performance which do not just cover revenue and turnover but also consider other important factors including debt, return on capital employed and liquidity. Similarly, the omission of factors such as league position, win ratios, attendance figures, number of games played and number of goals scored from the sporting performance function decreases the robustness of the methodological framework applied by the study. It has been previously outlined in academic papers (see Guzman and Morrow, 2007) that financial and sporting performance in professional team sports are inextricably linked. A substantial percentage of a club's revenue, for example, is largely dependent on their position in the league and performance on the pitch from the previous season.

As previously stated in the introduction to the thesis (section 1.1; p.2), there has also been a considerable amount of literature that has focused on the reported financial crisis in European football in recent years (see Andreff, 2007; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Hamil et al., 2004). All of these papers, in some context, focus on government regulation and ownership structure in professional football across Europe. Hamil et al. (2004) offer a more qualitative discussion around the corporate governance and financial performance in English professional football and the practices of some clubs included in the survey that do not have an internal audit committee. Hamil et al. (2004) suggest that this has negative consequences for the business performance of a football club and leads to the assessment of risk often being overlooked at certain times. The case of the ITV Digital television deal in English football is mentioned here where clubs spent money which they were anticipated to receive before the collapse of the ITV Digital deal. The case of the ITV Digital deal illustrates many of the peculiar problems facing football clubs as a fundamental rule of business under the accruals concept is that revenues and profits should not realised until they are received (Wilson, 2011). Buraimo, Simmons and Szymanski (2006) outline what they describe as a novel approach to financing which is closely related to this issue. The concept of 'securitisation', whereby lending is provided by investors against anticipated cash flows, such as season ticket sales and corporate hospitality income has been a strategy that a certain number of clubs, namely Leeds United and Leicester City, have adopted in certain years. In the case of Leicester City, the club obtained a £28 million securitisation deal drawn against future media revenues. The subsequent collapse of the ITV Digital deal coupled with the club's relegation from the EPL meant that these media revenues were seriously reduced and Morrow (2003) states that "the revenue flows on which a football club securitisation rely are simply too uncertain and too risky to make this a credible financing strategy" (Morrow, 2003: 159). Furthermore, the concept of 'securitisation' goes against accounting principles defined in chapter 2 and in particular the financial accounting concept of prudence which states that revenues should not be anticipated but recorded when they are actually realised (e.g. Wilson, 2011).

Hamil et al. (2004) argue that the solution to the financial crisis apparent in football is threefold. Firstly, clubs should comply with company law and the codes of corporate governance as stated in accounting policies. Secondly, there should be increased attention to the supporter base and local community as key stakeholders and, lastly, there should be a reform of revenue distribution rules. Whilst the second point involves a more social approach and is beyond the scope of the thesis, the remaining two points shall be discussed in turn. The paper suggests compliance with company law in relation to the Combined Code of Corporate Governance (CCCG), elements of which have been outlined in chapter 2. However, the lack of transparency within accounting practice and the inability for standard setters to introduce a confirmed set of rules and regulations that are rigid in structure means that financial mismanagement can often go overlooked, particularly in a business as diverse in nature as professional football. Furthermore, many clubs fail to submit annual reports in certain years but the existence of non-profit (sporting) objectives in the constitution of most clubs means that the business side of football is often neglected (Hamil et al. 2004). The date of this paper is a limitation to this critique but it is certainly fair to say that little has changed both in terms of the accounting policies and standards applied by clubs and the standards themselves. UEFA has signalled its intent to curb the spiralling debt figure associated with European professional football clubs but there are also doubts as to whether the regulations will alter anything at all (see section 4.7; p.108).

The point made by Hamil et al. (2004) regarding a reform of revenue redistribution rules is also open to critique. Whilst in theory it is a sound business idea, in practice it becomes increasingly difficult to apply to professional football particularly in light of the increases in broadcasting figures in recent years. Furthermore, as outlined in chapter

4 by Deloitte (2013), the EPL's broadcasting distribution model is currently the most equal of the 'big five' European Leagues (England, Spain, Italy, Germany, France). Individual selling rights in Italy and Spain have led to clubs such as AC Milan, Juventus, Real Madrid and Barcelona signing individual deals worth between €100-150m in recent years (Deloitte, 2011). Whilst there is increasing evidence of a move towards a more collective selling of broadcasting rights emerging throughout European football leagues it continues to be an issue for a number of clubs. The lack of an established Pay-TV market in Germany, for example, has constricted the growth of Bundesliga domestic broadcast revenues which are the lowest of the 'big five' European Leagues (Deloitte, 2011).

The increasing problem between rising revenues and decreasing profitability in European professional football is also a theme that has been covered extensively in academic literature (see; Andreff, 2007; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007). These three articles focus on English football, French football and German football respectively and similar topics and issues arise in all three papers. Andreff (2007) highlights that French football clubs had failed to make a profit for 7 of the past 8 years prior to this study and that whilst individual debt levels at clubs were not as high as some of their European counterparts (as at June 2004, Paris Saint Germain and AS Monaco's total debt of €179 million and €81 million respectively was dwarfed by losses at other European clubs at the same point in time; FC Barcelona (€230 million), Leeds United (€95 million), Inter Milan (€281 million) to name a few) there was an increasing element of financial crisis creeping into the French game. Moreover, Andreff (2007) also found that the majority of clubs performed poorly with reference to certain financial ratios such as the asset-debt ratio (Andreff states this is a cause for concern if it falls below 8%). In 2004-2005 six French clubs reported figures below 8% for this measure, suggesting a potential debt crisis if nothing else.

Andreff (2007) also states the influence of auditing issues when considering financial mismanagement and cites his own previous work as an example. French football is no more saved than other football leagues in Europe from financial mismanagement such as false invoicing, hidden honoraria, fake club accounting, book cooking, embezzlements, rigged matches, referee bribing, fictitious player transfers hiding undisclosed money transfers and abuse of social benefits (Andreff, 2000). This is a particularly strong claim to make but it is a common issue throughout European football and the financial situation of French football was believed to be serious enough to be the core issue of a governmental report presented to the parliament (Andreff, 2000). It also again underlines the issues with the lack of transparency outlined in chapter 2 and how this can lead to certain financial management principles being overlooked in professional team sport. There are a number of potential reasons for this which appears to be commonplace amongst professional European football leagues. Firstly, a weak governance structure at both league and club levels is a driving force for lax financial behaviour at managerial level (Andreff, 2007). Dietl and Franck (2007) also find this to be an issue within German football despite the licensing system in German football being significantly different to the French system. In France, for example, the licensing organisation is an independent authority with legitimate power to sanction each team (Gouguet and Primault, 2006). In Germany, on the other hand, it is unlikely that the Deutsche Fuβall Liga (DFL) will drastically sanction any of its members, especially big market teams (Bayern Munich, for example, reported a liquidity deficit of almost €30 million for the 2004-2005 season just a few months after it received its license from the DFL) (Dietl and Franck, 2007).

Both Andreff (2007) and Dietl and Franck (2007) outline the incentive to overinvest and shareholders behaving as non-profit-seeking investors as an example of softening a club's budget restraint and therefore relaxing the financial discipline over managers. The recent influx of foreign investors within the EPL in recent years bears testament to this (see Wilson and Plumley, 2009, 2010, 2011). A third factor is the apparent arms race among football clubs eager to enrol the most efficient players, which subsequently fuels wage inflation. Buraimo, Simmons and Szymanski (2006) also highlight excessive wage costs and an inability to adapt player wage contracts to demotion to lower divisions as well as a loss of revenue through relegation and a loss of TV broadcasting revenue coupled with insufficient revenue-generating capability as factors for the recent financial crisis in English football.

The factors and elements that have led to the so-called 'financial crisis' in European football in recent years may seem relatively straightforward considering the practices outlined for good financial management but defining how to react to a crisis and emerging from it with a sustainable business model becomes increasingly difficult. Andreff (2007) cited that French football should attempt to restructure the governance structure by reinforcing the inner audit which requires full independence of the audit from the French football authorities in tune with the internationally acknowledged good practices in auditing. Both the English and French football leagues would benefit from wage cuts or the possible introduction of a salary cap (Andreff, 2007; Buraimo, Simmons and Szymanski, 2006), yet this has never been a practice employed by football clubs in Europe and it is difficult to assess whether a salary cap in football would be as effective as it is in rugby for example. UEFA are attempting to introduce better financial control through the introduction of their forthcoming FFP regulations but it will be difficult to assess the merit of these proposals until they have been implemented for at least three years. In the medium term, Buraimo, Simmons and Szymanski (2006) argue that further adjustments need to be made to the financial position of English football clubs namely by debt rescheduling, the write-off of loans and sales of land, including stadium or training ground, to third parties. As Buraimo, Simmons and Szymanski (2006) point out, however, the majority of measures mentioned to help tackle a financial crisis are very short term and may have further implications for the business. A quick fire sale of assets or a wage cut will lead to some players leaving voluntary, a reduction in talent within the playing squad, and increased chances of relegation. Similarly, reducing commercial staff will threaten a club's ability to produce revenue through effective marketing (Buraimo, Simmons and Szymanski, 2006).

Perhaps the main issue here is again one of transparency which relates back to the framework prescribed for both accounting and auditing. It will also depend upon the industry in which the business operates in and the governance regulations applied at that level. In relation to German football, for example, Dietl and Franck (2007) conclude that the German system of governance is stuck in the middle. It does not rely on the set of market-based mechanisms of governance (from concentrated club ownership to corporate governance) employed in England, which can be activated if football clubs become genuine business firms, nor does it rely on rigid regulation, as in France, because the people that control the licences given to clubs are employees of the league, which in turn is controlled by the clubs (Dietl and Franck, 2007). This makes like-for-like comparisons between European leagues increasingly difficult as clubs are owned and governed in different ways which in turn affects the way in which they are managed in a financial context.

3.3.4.1 Key Issues

A similar theme occurs within this section of the systematic review. Once again, when financial or sporting performance is analysed, it is evident that the variables selected were chosen at the sole discretion of the authors and that there is no general consensus as to which variables are the most appropriate measure. Similarly, despite the increasing body of literature on the subject, there is also no general consensus reached as to the importance of ownership and control structure within a business. This point was highlighted by Short in 1994 and it would appear that little has changed, certainly not within the context of professional sport, as Wilson, Plumley and Ramchandani (2013) found ownership structure of EPL clubs from 2000-2010 to have little bearing on financial performance, concluding that no single ownership structure can, at the present time, be classed as definitively better than another.

Senaux (2008) attempted to examine this subject in a different way, focusing on the concept of a stakeholder approach to financial performance and club governance. However, defining which stakeholders really count and to whom managers should pay attention to is increasingly perplexing and it becomes difficult to contextualise this approach in light of the lack of transparency in accounting standards and practices discussed in chapter 2. In any case, Senaux (2008) found that the most important stakeholders are arguably the playing staff of the club, who will subsequently have very little control, or emotional attachment, into how the club is run from a strategic business viewpoint.

One of the main issues surrounding sporting and financial performance is the problem of causality. Does financial performance lead to sporting performance, is it the other way round, or even both? Previous studies (e.g. Guzman and Morrow, 2007) have adapted a lagged effect (a T-1 equation) to account for this issue. Subsequently, they attribute the current financial performance of a football club to be a product of the sporting performance of the previous season. However, as is the case with much of the literature surrounding performance measurement, there is no agreed consensus as to which factor is the cause and which factor is the effect. Furthermore, the choice of variables for analysis is again a contentious issue in this section. De Heij et al. (2006) suggest a more advanced multivariate approach to future research studies (they only used one measure of financial performance and four measures of sporting performance).

3.3.5 Financial Performance in Sport

Dimitropoulos (2010) and Hamil and Walters (2010) offer two papers that build on the analysis outlined in the previous section and these two papers are the most relevant and up-to-date pieces of research that relate to financial performance in professional football that were returned from the systematic review. The paper by Hamil and Walters builds on the points mentioned by Hamil et al. (2004) and offers an informative insight into some of the financial issues which affect modern day football. The paper puts forward a more qualitative analysis of the apparent debt crisis present in English football and highlights a number of financial issues at individual clubs using a case study approach. Hamil and Walters (2010) present an analysis of the financial performance of English football since the creation of the EPL in 1992 and pose many questions without really offering any answers or solutions. It demonstrates that despite large increases in revenue, in particular from broadcasting, football clubs in the EPL and Football League have year-on-year collectively failed to post a pre-tax profit. The figures quoted are taken from Deloitte's Annual Review of Football Finance and Hamil and Walters (2010) state that between the 1992/1993 season and the 2006/2007 season combined financial turnover of the clubs in the EPL increased by 900% from £170m to £1530m. Furthermore, this financial success is not just confined to the EPL. The combined turnover of clubs in the second tier of English professional football, the Championship, increased 179% from £186m to £329m between the 1997/1998 season and the 2006/2007 season (Hamil and Walters, 2010). It is worth noting here that the Championship remains the highest revenue-generating non top-tier domestic football league with revenues of €508m in 2012/13 placing it as the eighth highest revenue-generating league in Europe overall (Deloitte, 2014). Despite this, there has not been a single year since its foundation when the combined EPL clubs, and for that matter clubs in the lower leagues of English football, have made a collective pre-tax profit.

Hamil and Walters (2010) attempt to explain the reasons behind this and argue that clubs have only been able to survive through the receipt of new investment from owners or investors, or through alleviating debt via the financial administration process, as nearly 50 clubs went bankrupt between 1992 and 2009. Some of the arguments put forward in the paper are, however, questionable and open to critique. In relation to the point outlined above regarding administration Hamil and Walters (2010) state that English football is not immune from the impact of wider financial instability. However, this is not entirely true. By way of example, take the recent recession that affected the domestic economy between the years 2008-2010. Many business sectors continue to struggle as the country attempts to pull itself of the recession yet the EPL has remained financially stable throughout this time and has even continued to grow its revenue streams (Deloitte, 2012). In addition to the findings of the systematic review, this is further underlined by the most recent broadcasting deal signed in 2012 that covers the next three years of competition and is worth a combined total of £3 billion to English football clubs (Gibson, 2012).

Hamil and Walters (2010) also note the comparisons between the North American and European model (previously covered in this chapter) and state that owners are not motivated entirely by making money and that they are, in fact, motivated by non-financial considerations such as sporting performance. In summary, the paper by Hamil and Walters (2010) provides a case study of some of the biggest clubs in England (Arsenal, Chelsea, Liverpool, Manchester City and Manchester United) but only stipulates the figures involved in their respective takeovers, debt levels and league performance. Furthermore, the majority of these figures are sourced from journalist reports and newspaper articles and offer very little by way of financial examination and analysis. In contrast, Dimitropoulos (2010) covers the financial performance of Greek football clubs and provides statistical analysis to highlight his findings. It must also be noted here that the analysis put forward in this paper can also be viewed as largely simplistic as ratio analysis is only considered in isolation but the paper offers a far more rigorous overview of the financial performance of professional football clubs than that which is put forward by Hamil and Walters (2010).

Dimitropoulos (2010) analyses the financial performance of football clubs competing in the first division of the Greek football league for a period of 14 years (1993-2006) and performs financial analysis of key accounting ratios extracted from clubs' financial statements. Analysis revealed that clubs are highly leveraged, have intense liquidity and profitability problems and face increased danger of financial distress (Dimitropoulos, 2010). The paper attributes the crisis to aggregate financial mismanagement and political inefficiencies during the last fifteen years, with the overall picture suggesting that Greek football clubs are more performance seekers (utility maximisers) and not profit maximisers. The main themes discussed previously in this chapter are again evident in this paper, although Dimitropoulos (2010) does make an interesting point about the individual penalties for debt in football clubs throughout the different European countries. Each country has its own federation that determines its own rules and penalties in cases of debt. The strictest countries in respect of debts are France, Italy, Austria, Denmark, Hungary and Switzerland. In Italy, when the debt of a football club exceeds a specific amount, the team is relegated to a lower division. A similar scenario occurs in Switzerland where, if a football club has debts, the club is deprived of its professional status and is relegated to the first amateur division. In Spain, a case of relegation due to debts has never been recorded whilst in England a club that has debts loses ten points and enters administration until the debts have been settled (Dimitropoulos, 2010). This often results in new owners coming in and investing in the club or the worst case scenario of liquidation. The points raised above highlight the difficulties in attempting to produce like-for-like comparisons across the continent in relation to the financial performance of professional football clubs. Financial performance is difficult to measure across industries as different accounting practices and regulations are applied. This further underlines the impact that the regulatory framework outlined in chapter 2 has on measuring financial performance. A possible route for research would be to produce a pan-European study comparing different clubs across different leagues in Europe. However, in practice this becomes problematic as different leagues in Europe operate under different regulations and in some cases stricter financial constraints. This again reinforces the debate around keeping comparisons between organisations at an intra-industry level. Issues surrounding comparability, materiality and reliability coming out the conceptual framework are negated when producing comparisons within the same industry. Applying comparisons across different countries is increasingly problematic as there will be differences in both the industries and accounting frameworks in those countries.

3.3.5.1 Key Issues

It appears that there are very few academic papers that focus directly on the measurement of financial performance in professional football. This seems strange, given the increasing interest in the topic over the last twenty years or so. It is apparent from the literature that many papers make reference to financial performance but that this is often used to illustrate another underlying issue, such as governance, ownership structure and profit versus utility maximisation. It is also apparent that, in the majority of the literature studied, ratio analysis and DEA are the preferred statistical techniques for analysis. When focusing on financial variables ratio analysis is used to gain clarity and offers an objective approach to data analysis. Indeed, the methodological element of the paper by Dimitropoulos (2010) focused on ratio analysis of a number of different factors including net income, total assets, shareholders' equity, net sales, total debt and cash flows and receivables. A number of papers (e.g. Feng and Wang, 2000; Ponikvar, Tajnikar and Pusnik, 2009 among others) have also utilised ratio analysis in some way and considering the number of references made to ratio analysis in the papers analysed for the systematic review, it is reasonable to suggest that ratio analysis remains the dominant form of analysis when considering financial performance.

3.4 Summary

The main findings from the systematic review highlight that there are a number of different complex issues that impact on performance measurement both in business and in sport and that these areas have to be taken into account when considering a research project in this area. The systematic review has highlighted that there are a number of different methods to measure financial performance both in general businesses and in sporting businesses. It appears that based on previous research, the methods of analysis, choice of variables used and weighting factors have been at the discretion of the authors rather than defined through a more rigorous scientific protocol. This highlighted a potential gap for this thesis in terms of the literature which is further discussed in section 4.12 (p.116) at the end of the literature review. However, one of the deficiencies of this systematic review carried out in the thesis is that it did not highlight a considerable amount of literature that the author and supervisory team were already aware of in relation to the topic area. This could have been due to the scope of the search being too narrow or that the search terms and databases used were not entirely right. Subsequently, in order to add further rigour to the thesis, a narrative literature review was conducted to ensure that all relevant literature has been included before the study proceeds to methodology and data collection.

CHAPTER FOUR

A NARRATIVE LITERATURE REVIEW OF FINANCE IN PROFESSIONAL TEAM SPORTS

Chapter 1
- Introduction, Purpose and Rationale
- Aims and Objectives

Chapter 2
- The Nature and Purpose of Financial Reporting and the Contested Nature of Accounting Theory

Chapter 3
- A Systematic Review of the Literature Surrounding Performance Measurement in Business and Sport

Chapter 4
- A Narrative Literature Review of Finance in Professional Team Sports

Chapter 5
- Methodology

Chapter 6
- Pilot study, Model Formation and Headline Findings

Chapter 7
- Case Studies

Chapter 8
- General Discussion

This chapter presents a narrative review of the literature related to financial and sporting performance in professional football. Firstly, it introduces the important underlying theories of professional team sports and professional sports leagues before introducing the literature that is football specific. A review of the narrative literature is relevant considering the omission of literature within the systematic review that was known to the author and supervisory team as discussed in section 3.4 (p.93). It is acknowledged that this chapter does source more regularly from research monographs rather than peer-reviewed journals but there are key concepts that affect the financial and sporting performance of professional football clubs in England that need to be discussed and understood considering the context of the research area. Subsequently, this chapter provides a wider understanding of the business of professional football for the reader as well as complementing the systematic review undertaken in chapter 3.

4.1 The Economic Theory of Professional Team Sports

The organisation and structure of the EPL is defined within the European model of professional team sports. The underlying economic theory behind this model, and the contrasting North American model, provides the academic focal point for this topic and a discussion of these two models is provided below. The differences between these two models provide insights into how and why the EPL has consistently encountered periods of growth since its inception in 1992.

Professional team sports are intrinsically different from other businesses, in which a firm is likely to prosper if it can eliminate competition and establish a position as a monopoly supplier (Dobson and Goddard, 2011). In sport, however, it does not pay for one team to establish such a position due to the joint nature of 'production' in sports. The theoretical literature on the determinants of the degree of competitive inequality in sports leagues was developed by US sports economists, with North American team sports primarily in mind. Naturally, the development of this literature has led to comparisons between the North American and European model (see Andreff and Staudohar, 2000; Hoehn and Szymanski, 1999; Szymanski, 2003a for example). The European model is and will remain unique, but there appears to be convergence on certain features (Andreff and Staudohar, 2000). In both Europe and the United States, sports leagues are joint ventures that can be viewed as a single entity or cartel. Clubs are separately owned with discretion to set prices, market the games, and adopt strategies to compete with other clubs. There are, however, several key differences between the two models, all of which ultimately impinge on factors such as revenue generation and ability to compete. Firstly, the American sports model operates a draft system where the best performing rookie (from the college school system) is assigned to the worst performing team. Furthermore, American sports leagues operate under salary caps, share television revenue equally and compete exclusively in domestically structured leagues (aside from a handful of Canadian franchises) (Andreff and Staudohar, 2000). In place of promotion and relegation, evident throughout the European model, changes in American leagues come from adding new franchises and relocating franchises to another city.

Analytically, it has been suggested (see Andreff, 2011 for example) that profit maximisation is the prime objective of North American leagues and team owners, so profitability is the main factor influencing decisions concerning the award of franchises and relocation (Dobson and Goddard, 2011). By contrast, it has been suggested in previous literature that the European sports model is more closely related to utility or 'win' maximisation (see Garcia-del-Barro and Szymanski, 2009; Kesenne, 1996, 2000; Sloane, 1971). The omission of features such as salary caps and revenue sharing in the European model arguably makes it a more attractive investment opportunity, particularly for utility maximisers (consider the case of Chelsea and Manchester City in English football) whose desire for short term sporting success is currently funded through the purchase of better players who command higher salaries. Contrast this with profit maximisers, clubs that have previously followed the stock market model of ownership, and it is apparent that the differences highlighted between the North American and European model are also prevalent in the behaviour of ownership types of English football clubs.

4.2 Profit vs. Utility Maximisation

Very few markets can be classified as perfectly competitive or as a pure monopoly (see Gratton and Taylor, 2000). The vast majority of firms do compete with other firms, often quite aggressively, and yet they are not price-takers. Most markets, therefore, lie between the two extremes of monopoly and perfect competition, in the realm of 'imperfect competition'. Within this, lies monopolistic competition and oligopoly. The EPL is most closely related to monopolistic competition as all clubs are essentially selling the same product, albeit at different prices. Profit maximisation and financial return on investments are not widely held to be strong motives in English football (Buraimo, Simmons and Szymanski, 2006) but there is certainly an argument that this may change in the future particularly in light of the Glazer takeover at Manchester

United - the only takeover so far where making profit was the sole motivation of the owners.

Despite the headlines surrounding the Glazer's and the opposition they have met at Old Trafford, from a financial viewpoint there seems very little cause for concern. The club, in 2012, reported cash reserves of £150m - a respectable amount even in relation to the £600m net debt. As long as this debt remains serviceable and the club spends within its means then further financial trouble is unlikely. The club's turnover at year end 2011 was £331m and the wages/turnover ratio was 46%, well below UEFA's recommended maximum limit of 70% and also below their 'threshold of excellence' at 50%. New strategic business options have also been outlined at the club including future sponsorship deals and the selling of club networks worldwide. Indeed, the latest two sponsorship deals secured by the club at the time of writing with kit manufacturers Adidas and kit sponsor Chevrolet are reportedly worth around £75m and £53m per season respectively (Telegraph, 2014). This, however, is nothing above what any investor could have implemented, be they foreign or domestic, proving that the arguments relating to the issue of ownership structure is not necessarily based on financial principles. By sharp contrast, a number of clubs in the EPL rarely consider the concept of profit maximisation. Certain investors (Roman Abramovich at Chelsea and Sheikh Mansour at Manchester City) become the club's main benefactor and the club is ultimately indebted to this individual. Furthermore, during the stock market boom in professional football in the mid-1990s, the main aim of flotation was to raise capital, albeit here the clubs also had to consider making profit for their shareholders. The benefactor model removes this consideration and allows clubs to be less concerned with financial returns and profit.

4.3 Uncertainty of Outcome

Perhaps the most fundamental aspect of professional football - an aspect that makes the product an attractive one and perhaps explains to some extent the exponential rises in revenue in recent years - is competition. As previously stated (p.95, para. 3), it is not beneficial for one football team to establish a monopoly owing to the joint 'production' of team sports (Dobson and Goddard, 2011). On the pitch, at least, teams need other teams to compete against in order to be able to survive. Academics such as Dobson and Goddard have often championed the argument that the greatest benefits to a team is where the competition is close to equal (i.e. either team in any one match has an equal chance of winning that match). This is known as uncertainty of outcome which, in turn, has close links to sporting performance in professional team sports. It is often a term used exclusively in economics but it also has implications for both financial and sporting performance.

Uncertainty of outcome not only relates to how one sided a match is predicted to be; it can also have a significant effect on gate attendance and, more broadly, television viewing figures. For example, as the probability of either team winning approaches one, it is possible that gate receipts may fall substantially. Morrow (2003) believed this to be a significant problem for the football industry stating that if viewers perceive games as one-sided then viewing figures may fall accordingly. However, this is not reflected in the live game fixture lists on pay-per-view channels. The trend since the late 1990s has been that the so-called 'big' clubs, or clubs that are more likely to finish higher up the league table, have been selected for live television coverage more often than teams at the bottom end of the league. Indeed, the latest figures support the trend owing to the fact that the teams shown the most number of times on live television in 2013/14 (Liverpool (28 live games), Manchester City (25), Chelsea (25) and Arsenal (25)) also happened to be the clubs that finished in the top four league positions in the same season. Despite the concerns of Morrow (2003), and the wider reaching implications for competitive balance, Simmons (2008) does not view this as a particular problem. Conversely, Simmons (2008) found that an increase in uncertainty of outcome is actually more associated with reduced gate attendance implying that, ultimately, fans (in particular fans of the home team) prefer to see their team play an inferior team and beat them (Simmons, 2008). Home-field advantage is often also discussed in relation to uncertainty of outcome although studies have concluded that home-field advantage has declined in certain sports in recent decades including the National Basketball Association (NBA) and National Hockey League (NHL) in America and in English football (Dobson and Goddard, 2011).

The vast majority of literature surrounding the economics of professional team sports is concerned with competitive balance or competitive imbalance. Indeed, Dobson and Goddard (2011) proclaim that the problem of measuring competitive balance or competitive inequality within a sports league has attracted considerable attention in the academic sports economics literature in recent years. Researchers have applied several measures of concentration or inequality, some of which are borrowed from industrial economics, to sports teams' win ratio or league points data (Dobson and Goddard, 2011). However, the economic aspects of sporting performance (in general sports economics texts) are often considered in isolation and there is little reference as to how these can be linked together with financial performance factors to contribute to an overall measure of performance. It is these two areas which form one of the focal points of the thesis and they are discussed in turn below in relation to professional football. First, financial performance in football is considered before sporting performance is analysed. The chapter concludes with a section that details the relationship between financial success and playing success.

4.4 Financial Performance in Football

The most comprehensive review of the financial performance of professional football clubs, particularly within the English professional football industry, is provided by Deloitte, whose *Annual Review of Football Finance* publication (various years) is now in its twenty-third edition. During the course of the last twenty years the domestic landscape of football in England has altered considerably and the discussion outlined below adapted from the Deloitte analysis is testament to this. In 1991/92 the collective revenue of the 92 Football League clubs was £263m, with the average club in the old Football League Division One generating less than £8m. In 2011/12 the 92 Premier and Football League clubs combined revenues exceeded £3 billion for the first time, with average Premier League club revenues having risen to £118m, nearly 15 times their level 20 years previously (Deloitte, 2013).

This remarkable rate of growth reflects the game's omnipresent domestic and global profile with the exposure and interest having relentlessly driven revenues. There is little doubt that the league is an incredible success in revenue terms and this success has continued in recent years through one of the most challenging economic environments in decades as the economy continues to struggle to regain ground lost during the 2008/09 recession. Football, at the top end in particular, continues to thrive with capacity utilisation at EPL games standing at 95% (Deloitte, 2013). In relation to the EPL, there have been a number of important factors that have contributed to the success that the League has today. A number of these factors are outlined briefly here before they are analysed in more detail in section 4.5 (p.100).

The impact of broadcasting is arguably the most important development in driving revenues during the last two decades. In 1992 the EPL's first TV deals were worth £52m per season, As previously stated, the latest broadcasting deal signed will generate around £3.4 billion over the three seasons from 2013/14 (Deloitte, 2013). The Taylor

Report, which required all clubs in the top two divisions to have all-seater stadia from the 1994/95 season, was a factor in driving up the revenues obtained from broadcasting rights. As football began to place an increasing emphasis on the business aspect of the sport twelve EPL clubs floated on the stock market in 1997 and Manchester United topped the first Deloitte Football Money League in 1998 (Deloitte, 2012). By 2002 EPL clubs' revenues exceeded £1 billion for the first time and in 2003 Roman Abramovich started a revolution in the English game by becoming the first investor from overseas to purchase an English club (Chelsea FC). In the years following this, Abramovich has invested over £800m into Chelsea Football Club and he has been joined by a further influx of foreign investors at other clubs, most notably by the Glazer family at Manchester United (2005) and Sheikh Mansour at Manchester City (2008) who has also invested around £800m since his takeover of the club (Deloitte, 2012). On the pitch only five clubs, out of a total of 45 who have competed in it, have won the EPL since its introduction in 1992, with Manchester United being the most successful (13 titles), followed by Arsenal and Chelsea (3 titles each), Manchester City (2 titles) and Blackburn Rovers (1 title).

4.5 EPL Clubs as Revenue Generators

With exponential rises in revenues and the increasing commercial appeal of the EPL in recent years it is easy to see why many people now define football as a business (see Banks, 2002). In a conventional business, one might expect the *only* motivation for running the business to be to make a profit (Beech, 2010). However, this very rarely occurs in English football, particularly in the EPL (collective net losses for EPL clubs totalled £316m in 2012/13 (Deloitte, 2014)). Furthermore, despite the rises in revenues and investment in the EPL over the last twenty years, it is clear to see that there is some disparity between revenues and costs. Revenue growth has been accompanied by corresponding increases in costs, particularly in player wages. The control of players' wages, in order to deliver robust and sustainable businesses, remains football's greatest commercial challenge. In recent years there has been an increasing trend for any additional revenue generated to disappear as additional costs (Deloitte, 2012). The total wage bill across the EPL was almost £1.8 billion in 2012/13 and there were six EPL clubs with total wages above the average of £89m. These six clubs also finished in the top seven positions in the league table (Deloitte, 2014). The increase across the league is indicative of the costs of both success and failure in the EPL. Manchester United's league title in 2011 and Tottenham Hotspur's UEFA Champions League campaign in the same year resulted in total wage increases of £21m and £24m respectively. Similarly, Manchester City's continued investment in their playing staff and victory in the FA Cup in 2011 led to a £41m increase (Deloitte, 2012) and their total wage bill at 2012/13 totalled £233m (Deloitte, 2014).

It is worth noting that this relationship between wages costs and team performance is not a new phenomenon. Szymanski and Kuypers (1999) considered the relationship between wages and team performance and the majority of cases analysed suggested a strong positive relationship between the two (i.e. spending more money on players' wages and, more importantly, better quality players results in a higher league position). However, in light of UEFA FFP (regulations imposed by UEFA in an attempt to help clubs spend within their means) this is the first time that the amount that clubs are paying on wages has been scrutinised at length and clubs will now face sanctions if they are overspending on players' wages. Deloitte, both presently and in previous years, continue to suggest that a wages/revenue ratio of 70% is an indicative threshold, with clubs who consistently exceed this level likely to require funding outside of their revenue to sustain their operations (Deloitte, 2012). This 70% level will be used by UEFA as part of FFP, with clubs exceeding this level potentially facing additional monitoring and information requests. Further details of FFP and its implications for professional football and the EPL are discussed at length later in the chapter (see section 4.7, p.108).

These substantial increases in wages and player costs have led to new models of club financing. Various clubs in the EPL have continued to benefit from injections of funding from their owners, to supplement their investment and spending requirements beyond the limits of their revenue generation (Deloitte, 2012). Total net debt for EPL clubs stood at £2.5 billion in 2013 (Deloitte, 2014), although EPL clubs have reduced their indebtedness by almost £1 billion over the last two years with the most significant driver of this being the conversion of owner debt to equity at some clubs and the reduction in net bank borrowings reflecting the tightening of credit lines from traditional banking channels (Deloitte, 2012). In principle, however, debt is not necessarily a bad thing, as long as it is manageable within a club's existing operations so that it is sustainable and repayable (Deloitte, 2012).

The fact that the EPL is currently the largest revenue-generating league in world football (€2.9 billion in 2012/13 (Deloitte, 2014)) does not detract from the fact that controlling costs remains a substantial challenge for professional football clubs. For football clubs revenue streams fall under three main headings: matchday receipts, broadcasting rights, and commercial receipts (see Beech, 2010; Deloitte, 2012), whilst the biggest costs a club faces are its players and the general trend is clearly one of increasing costs owing to the temptation to pay more to get better players.

4.5.1 Matchday Receipts

Until the 1990s, gate revenues from league matches represented the largest source of revenue for all football clubs. It was not until the start of the 1990s that clubs' revenue sources became sufficiently diversified that the share of league gate revenues in aggregate revenue fell below 50 per cent for the league as a whole (Dobson and Goddard, 2011). Notwithstanding this, the money that a club takes in on the day of match has always traditionally been a major source of revenue, and, at the lowest level of the league, it will continue to be the main revenue stream (Beech, 2010). One of the main advantages with gate revenue is that it is something, to a certain extent, that clubs will always be able to control. A club can increase its financial stability by selling more season tickets. Its ability to do so will be influenced by the price of the season ticket, the number of seats it allocates to season ticket holders, and the number of seats it has available to sell (Beech, 2010). Most EPL clubs are already playing to capacity crowds the majority of the time and so are only able to maximise their profits from the sale of tickets by pushing prices up to the limit at which fans will start declining to buy tickets. At a club where there is normally spare capacity, the club has much greater opportunity to experiment with ticket prices, either with the simple change in price or with more complex package deals such as family tickets (Beech, 2010). Similarly, a club could look to increase matchday receipts by increasing the number of seats in the stadium, although there is a considerable financial cost to expanding a stadium or relocating to a brand new stadium (Beech, 2010).

Recent evidence suggests that EPL matchday revenues remain relatively healthy. Indeed, matchday revenue decreased only marginally in 2011/12 (down 1%). The total matchday revenue (largely from gate receipts) for all clubs was £547m, although three clubs alone (Arsenal, Chelsea and Manchester United) accounted for almost half of matchday revenue across the league (Deloitte, 2013). This is largely attributed to the fact that these clubs, particularly Arsenal and Manchester United, have the highest stadium capacity figures in the league. Many other clubs are currently attempting to narrow this gap through capital investment projects as described by Beech (2010) above.

The 2012/13 season saw the highest amount of capital investment (£211m) by the top 92 professional clubs since Arsenal's Emirates stadium opened in 2006 and capital investment across the top four divisions since the EPL began has now exceeded £3.5 billion (Deloitte, 2014). English clubs have traditionally maintained strong investment in facilities for the longer term benefit of the game, with more than £150m invested in facilities in every one of the fifteen seasons since 1997/98 (Deloitte, 2013).

4.5.2 Broadcasting Rights

Morrow (2003) proposed that football's relationship with TV is a paradox. Television has been responsible for substantially increasing the revenues available in the game as a whole. At the same time it is those very revenues, or rather the manner in which they are shared out, that has most undermined competitive league balance and has led to the emergence of financially dominant leagues and financially dominant super clubs (Morrow, 2003). This has been evidenced in the way in which television revenues are shared out in countries such as Spain where La Liga remains highly polarised, with €1 billion (56%) of 2011/12 revenues relating to Real Madrid and Barcelona, exacerbated by their ability to sell their own broadcast rights (Deloitte, 2013). Indeed, discussions continue in Spain about changing to a collective rights model and a more equal distribution mechanism in the near future. Beech (2010) offers a similar argument stating that while the advent of large revenues from broadcasting rights has become a major feature of post-commercialised football, they have brought with them serious problems for clubs with regards to financial planning. However, in relation to the distribution of television rights in recent years, the EPL model has been considerably fairer than other European leagues, although the model favours EPL clubs more so than clubs in the lower leagues. Fifty per cent of broadcasting rights in the EPL is divided equally among the clubs, twenty five per cent is distributed as merit payments (i.e. the higher the club finishes in the table, the more it receives), and twenty five per cent is on the basis of the number of appearances on television (Vrooman, 2007). This formula results in higher payments to the more successful clubs yet it is considerably fairer than the system in Spain's La Liga, for example, where Barcelona and Real Madrid alone earn almost half (48%) of the total revenue from broadcasting rights for the league (Deloitte, 2012).

Major football broadcasting rights contracts have escalated substantially in recent years. The first television contract signed in 1983 for just £5.2m (Gratton and Taylor, 2000) seems remarkably nondescript in relation to the more recent deals. Between the years

2001-2004 domestic TV rights in the EPL were worth £450m which by the end of the 2007-2009 deal had escalated to £1.7 billion. Beech (2010) stated that it would be dangerous to assume that such increases could continue unabated but commentators have again been proved wrong in the context of the latest TV deal signed in 2012. Over the following three years, up until 2015, the deal is worth a record £3 billion, a staggering 71% increase on the previous deal and a figure that equates roughly to an extra £14m for each EPL club (Gibson, 2012). There is an argument, however, that the continuation of increased broadcasting revenue could continue to expand the gap between the EPL and the rest of the football league, particularly because clubs receive parachute payments if they are relegated from the EPL. Clubs relegated from the EPL currently receive a combined £60m over four years following relegation, thus enabling clubs to hold on to their best players on high wages and strengthen their chances of an immediate return to the EPL.

4.5.3 Commercial Rights

Commercial rights normally fall into three revenue streams consisting of sponsorship, merchandising and ancillary services (Beech, 2010). Sponsorship is widely recognised as the main commercial income stream and clubs are now looking into ways of expanding their sponsorship deals to include stadium naming rights as well as shirt sponsors and matchday sponsors. Manchester City are a recent example of this, with the club signing a deal with Etihad (also the shirt sponsors of the club) for the naming rights of the stadium worth an estimated £400m over ten years. Alongside this, clubs are attempting to expand their merchandising portfolio by redesigning their online and retail shops and branching out into the global marketplace. Fry (2007) stated that Manchester United could claim 50m fans across Asia alone and, as noted previously (p.97, para.2) the club are exploring new business opportunities such as the selling of club networks to countries in Africa. A further income stream for professional football clubs is the ancillary services that can generate extra revenue. These include both those that are matchday related, such as the variety of hospitality packages now widely offered, and those that are not matchday related, such as non-matchday use of the stadium for events such as pop concerts (Beech, 2010).

Commercial revenue was the main area of growth in 2012/13 rising by 21% on the previous year to £129m. However, this was largely attributable to new sponsorship deals by the two Manchester clubs (City's deal with Etihad, see above, and United's deal with American car company Chevrolet) and Liverpool (Deloitte, 2014). It is desirable for clubs to have a balanced revenue model, whereby each source contributes a relatively equal share of total revenues. This ensures that clubs diversify risk, reducing the potential impact of factors not wholly under the business' control such as weaker on-pitch performance or adverse conditions in the broadcast or sponsor market (Deloitte, 2010). All of the above forms of revenue generation are vital for football clubs in relation to the increasing costs that have been as frequent as the increases in revenues.

As previously stated, the main cost for a football club is more often than not its playing staff and the wages associated with said players. However, the bigger picture in terms of revenues and costs in EPL clubs can also be analysed in relation to the changes in ownership structure at EPL clubs in recent years. During the last ten years there has been a move away from clubs floating on the stock market to becoming privately owned entities. Additionally, a large proportion of this private investment has come from overseas denoting a shift in ownership structure in the modern game. The next section (4.6) discusses these changes in ownership. Simultaneously, whilst EPL clubs' revenues continued to rise, the profitability of clubs has become notably poor, culminating in an increase in debts and losses. Such losses could be due to a move away from the stock market model of ownership, where profit maximisation is arguably the main priority, towards private investment (most notably foreign benefactors). For example, recent losses at Chelsea and Manchester City have been attributed to spending more money on transfer fees and player salaries, funded by the clubs' wealthy foreign benefactor. At these particular clubs it can be reasonably suggested that utility and 'win' maximisation outweighs any desire to run the club as a profitable business.

4.6 Ownership Models in Football

The previous sections have covered the main revenue streams associated with professional football clubs. There are other factors that also effect the business operations of a professional football club. For example, in contrast to revenue, the main costs a football club incurs are the wages of its playing staff. These players can also be bought and sold on the transfer market which will affect revenues and costs accordingly. Furthermore, clubs are also dependent on benefaction, investment and indebtedness (Beech, 2010). The latter three factors cover many areas including local businessmen with some form of emotional attachment to a club providing the necessary funding (benefaction), cash injections from wealthy, and often foreign, businessmen (investment), and borrowing, be it indirect or direct, from institutions such as banks (indebtedness). These terms all relate to the business strategies and objectives of professional football and how they are owned and run.

Walters and Hamil (2010) argue that since the formation of the EPL in 1992 three ownership models have presented themselves, all having different motivations and measures of success; the stock market model of ownership, the supporter trust model of ownership and the foreign ownership model (which has become increasingly prominent since 2004). They continue to suggest that all three models are legitimate business models although the type of ownership can impact on football club governance (Walters and Hamil, 2010) and, by definition, therefore, finance.

Through further research, it is apparent that the stock market model of ownership firstly originated in the 1980s (Tottenham Hotspur was the first football club to float on the stock market in 1983) although the boom period really took hold in the mid-1990s following the formation of the EPL (Dobson and Goddard, 2011). Whilst the flotation by Tottenham Hotspur raised £3.3m in October 1983, indifferent results in several of the other diversified businesses over the next few years meant that flotation was considered to have had a negligible effect on the club overall. Subsequently, it would be several years before another club floated on the stock market, Millwall raised £4.8m through floatation in October 1989, and Manchester United £6.7m in June 1991 (Dobson and Goddard, 2011). The introduction of the EPL in 1992 and the increase in the value of shares in Tottenham Hotspur and Manchester United between December 1994 and December 1996 (300 per cent and 400 per cent respectively) meant that circumstances were favourable for a spate of fifteen further flotations between September 1995 and October 1997. Deloitte estimate that EPL clubs raised approximately £175m in total through stock market flotations. However, the listing of football clubs seems to be increasingly less attractive in modern times (see table 8) and, since the turn of the century, 14 football clubs have de-listed with many experiencing a significant drop in share price due to poor returns on investment as a result of an inherent difficulty for clubs to generate profits. It appears that city institutions simply do not see football clubs as viable investment opportunities (Walters and Hamil, 2010).

Table 8: The Listing and De-listing of Professional Football Clubs

Club	Year Floated	Position at October 2008
Arsenal	1995	7750 (£)
Aston Villa	1997	Delisted: 2006
Birmingham City	1997	27.00
Bradford City	1998	Delisted: 2002
Bolton Wanderers	1997	Delisted: 2003
Charlton Athletic	1997	Delisted: 2006
Chelsea	1996	Delisted: 2003
Leeds United	1996	Delisted: 2004
Leicester City	1997	Delisted: 2003
Manchester City	1995	Delisted: 2007
Manchester United	1991	Delisted: 2005
Millwall	1989	0.03
Newcastle United	1997	Delisted: 2007
Nottingham Forest	1997	Delisted: 2002
Preston NE	1995	117.50
QPR	1996	Delisted: 2001
Sheffield United	1997	9.75
Southampton	1997	28.00
Sunderland	1996	Delisted: 2004
Tottenham Hotspur	1983	85.00
West Bromwich Albion	1997	Delisted: 2005
Watford	2001	13.50

(Adapted from Walters and Hamil, 2010)

The supporter trust model of ownership (see Walters and Hamil 2010) is of less relevance to the thesis as doubts have been raised as to whether this particular ownership model would work in the EPL simply because of the size of the companies in comparison to lower league clubs. Indeed, Brown (2007) infers that this model of ownership has failed to demonstrate how it can work for entities the size of Manchester United where major corporate finance is needed for a meaningful stake.

4.6.1 The Foreign Ownership Model

This third ownership model is becoming increasingly prominent in the EPL (see table 9). The reasons for this are threefold: First, as the football industry has become more commercialised, the costs required to operate a club in the EPL, taking into account the significant rise in player wages, have increased substantially. Many owners have been unable to provide the required levels of investment in order to compete and have sold their majority stake in the club to wealthy foreign investors. Secondly, as noted previously, the global appeal of the EPL and the high value of the most recent domestic, overseas and highlights broadcasting rights (approximately £3.4 billion between 2013/14 and 2015/16). Third, the opportunities for global expansion to maximise brand potential makes owning an EPL club an increasingly attractive proposition to foreign investors (Walters and Hamil, 2010).

Table 9: Foreign Ownership and the EPL

Club	Deal Date	Owner	Country	Initial Deal Value (£million)
Fulham	May 1997	Mohammed Al-Fayed	Egypt	30
Chelsea	July 2003	Roman Abramovich	Russia	135
Manchester United	May 2005	Malcolm Glazer	USA	725
Aston Villa	August 2006	Randy Lerner	USA	75
Manchester City	September 2008	Abu Dhabi United Group	UAE	82
Birmingham City	October 2009	Carson Yeung	Hong Kong	81.5
Sunderland	May 2009	Ellis Short	USA	30
Liverpool	October 2010	New England Sport Ventures	USA	300
Blackburn Rovers	November 2010	Venky's Group	India	46

(Source: Walters and Hamil, 2010)

Given that the issue of foreign ownership is a relatively new phenomenon, the fact that many EPL clubs have sought such investment to help them progress on the pitch and given the media attention it is awarded it seems necessary to consider its implications, not least considering the increasing amount of financial irregularities that are becoming more frequent in club accounts. There is a financial argument that clubs should be run as viable going concerns as opposed to financially mismanaged entities. Clubs may be able to buy instant success bankrolled by foreign millions but that does not necessarily mean that clubs will instantaneously become financially stable. This argument appears to have been part of the rationale behind UEFA's FFP initiative, which encourages clubs to spend within their means or risk sanctions. Such regulations may not abate the influx of foreign investors in football clubs although it may mean that future investors cannot spend as liberally as has previously been the case, particularly at Chelsea and Manchester City for example (see Wilson, Plumley and Ramchandani, 2013).

4.7 UEFA Financial Fair Play

In an attempt to combat spiralling debt levels and excessive spending European governing body UEFA have implemented measures that will seek to address the way in which football clubs operate financially in the future with the introduction of Financial

Fair Play (FFP). The regulations of FFP in relation to the monitoring requirements which will be discussed in this thesis can be found in appendix 2 (this information is sourced from chapter 2 of UEFA's Club Licensing and Financial Fair Play Regulations Edition 2012). Financial discipline is an essential element of the measures which, among other things, seek to curb the spiralling transfer fees, and the main component of the regulations - the 'break-even' requirement - will come into force for financial statements in the reporting period ending 2012. Under the break-even requirement clubs may not spend more than the income they generate. Clubs will also be assessed on a risk basis, in which debt and salary levels are taken into consideration and they will also have to ensure that liabilities are paid in a punctual manner (UEFA, 2010).

Admittedly, there are areas of FFP that will take time to implement and there are also considerable grey areas within the proposals. Indeed, Flanagan (2013) notes:

> "Whilst the idea that one can perform an equation of 'Relevant Income minus Relevant Expenses equals break even calculation' conveys the general spirit of FFP, it is a somewhat superficial interpretation. The reality is altogether more complex as the regulations contain myriad caveats, admonitions and provisions." (Flanagan, 2013; 3)

Following transitional implementation, the aggregate break-even result will be the sum of three reporting periods (T, T-1 and T-2), plus the surplus (if any) of the preceding two periods (T-3 and T-4). If a club has an aggregate break-even surplus, or a deficit which is within the acceptable deviation, then the break-even requirement is fulfilled. Initially the acceptable deviation is €5m (c. £4m), or up to €45m (c. £36m) if the excess over €5m is covered by unconditional contributions from equity participants and/or related parties. This upper threshold will reduce to €30m from 2015/16, and a lower amount (to be defined) from 2018/19 (Deloitte, 2012). The above sounds unnecessarily complicated but, to all intents and purposes, the small print above effectively relates to cash injections from wealthy owners and/or investors. Deloitte (2012) and UEFA go on to state as much;

> "...the regulations do not impose a limit on owner investment, but do seek to limit a club's losses over time whilst encouraging owner funding to be directed more towards spending on facilities and activities for the longer term benefit of football." (Deloitte, 2012; 71)

Such regulations would require many clubs to reinvent their respective business models, whether in a period of economic uncertainty or not. UEFA state that the FFP measures are not a means of punishing clubs but a way of helping them and also to help improve financial standards in European football. However, anecdotally at least, it would appear that many clubs - particularly in England - would struggle to reach the break-even requirement at the present time. Indeed, the results of a simulation exercise by UEFA for reporting periods ending in 2008-10 illustrated that 35 (16%) of the clubs in UEFA club competitions for the 2011/12 season had an aggregate break-even deficit of greater than €5m. Of these, 12 clubs had an aggregate deficit within the €45m upper threshold which was covered by contributions, leaving 23 clubs from across Europe that appear not to satisfy the break-even requirement had the regulations been in place at that time (Deloitte, 2012).

There is also scope within the requirements for clubs to enhance future sponsorship deals to increase revenue streams and to commit funds to enhance training facilities and talent development in accordance with UEFA's licensing requirements on youth development. Manchester City is a particularly relevant case with respect to the issues raised above. The club recorded an annual loss of £194.9m in 2010/11, the biggest in English football history, and a £73.9m increase on the previous year (2010) where the club lost £121m. Admittedly, Manchester City cut losses in 2011/12 which shows that the club are attempting to conform to FFP. Furthermore, this figure does not take into account the club's sponsorship deal with Etihad Airlines, worth an estimated £400m over ten years, or the income from the 2010/11 Champions League campaign - a competition in which Manchester City hope to become regular participants in during the coming seasons. City continue to work closely with UEFA and insist that FFP will not be an issue for them and the losses sustained in the meantime are necessary for the club to become sustainable and grow in the future.

There is more concern that certain clubs in other European leagues - where the brand is weaker than the EPL and television revenues and media exposure are not as high - could be in danger in relation to the new regulations. Recently, Italian club Juventus announced plans to raise €120m (c. £96m) through a share sale to combat the worst financial loss in the club's history. Juventus recently revealed losses of €95.4m (c. £76.4m) for the year ending June 2011 (Cutler, 2011). Additionally, clubs in Spain have encountered similar financial problems in recent seasons such as Valencia and Malaga, highlighting the dominance of Real Madrid and Barcelona in La Liga and the financial gulf between these two clubs and the rest of the Spanish clubs. The Bundesliga's club ownership model and the 50+1 rule (see Dietl and Franck, 2007) has been praised in recent years but clubs such as Schalke 04 and Borussia Dortmund have recently encountered financial problems and the way in which clubs are run in Germany may need to be revised in the near future.

UEFA has been praised (see for example Flanagan, 2013) for creating strong foundations with FFP and there are a number of advantages to the proposals. The regulations can help clubs in their negotiations to better rationalise their player costs (both wages and transfer fees), limiting inflationary increases and, potentially, implementing pay structures that are more strongly based on a club's on-pitch results and the consequent financial implications (Deloitte, 2012). Flanagan (2013) offers similar thoughts and states that FFP represents a modest, robust and graduated attempt to regulate toward financial rationality and that UEFA should be applauded for taking a proactive approach rather than letting financial concerns manifest. However, at the same time, the same author argues that FFP is not a panacea to the multifarious issues presented by the economic growth of European football; nor does it represent the most natural use of the word 'fair' (Flanagan, 2013). Subsequently, there is an argument that FFP will actually achieve very little (among EPL clubs specifically), other than to further widen the gap between the top six in the EPL and the rest of the clubs. FFP is directly related to clubs who wish to apply for a UEFA licence and qualify for European competitions, yet all clubs in the EPL wish to conform to the regulations. This makes sense, as running the club as a sustainable business should be a priority, but the spending power and commercial appeal of the top five or six clubs in England will make it very difficult for the so-called lesser clubs to catch up and level out the financial playing field. Even then, the top clubs will continue to generate more revenue from maintained on-pitch success and driving commercial revenues off-pitch meaning that they will have more money to invest in player talent than other clubs under the 'spending within your means' principle outlined by UEFA in FFP. In addition to this, the EPL and Football League have introduced their own version of FFP which has both similarities and differences to UEFA's proposals.

4.8 Financial Fair Play in the EPL and the English Football League

FFP in the Football League has been in operation since the 2012/13 season. It aims to reduce the levels of losses being incurred at some clubs and, over time, establish a league of self-sustaining professional football clubs (The Football League, 2012). In the Championship, clubs have agreed to follow the break-even principles of UEFA FFP whilst in League 1 and League 2 a Salary Cost Management Protocol (SCMP) will be implemented which broadly limits spending on total player wages to a proportion of each club's turnover (similar to the wages/turnover calculation figure calculated by UEFA FFP). In the Championship, in order to comply with the regulations, each club is required to demonstrate a 'Fair Play Result' (defined as profit or loss before tax) that is either nil or greater or a loss less than the permitted level of acceptable deviation and shareholder equity investment for the season in question (The Football League, 2012). The permitted level of acceptable deviation and shareholder equity investment has reduced over time from £4m and £8m respectively in 2011/12 and will reduce further to £2m and £3m in 2015/16 (see table 10). Similar to UEFA FFP, there are exceptions to the 'Fair Play Result' that include investment in youth development, the profit affecting element of the purchase, sale and depreciation of fixed assets excluding players (e.g. a club's stadium), investment in a club's community scheme and promotion related bonus payments. Sanctions for clubs that do not abide to the regulations include transfer embargos and fines which rise according to severity.

Table 10 - Acceptable Deviation Levels for Football League FFP

(All figures £m)	Season				
	2011/12	2012/13	2013/14	2014/15	2015/16
Acceptable Deviation	4	4	3	3	2
Shareholder Equity Investment	8	6	5	3	3
Total Permitted Allowances	12	10	8	6	5

Contrastingly, the EPL has introduced a considerably softer approach with their interpretation of FFP. Indeed, critics have suggested that the EPL regulations are more aligned to self-interest than financial fair play (Conn, 2013). The chief executive of the EPL Richard Scudamore has stated that the proposals should not be likened to UEFA FFP and the regulations themselves are notable in relation to how different they are to UEFA FFP. Whilst UEFA's regulations restrict clubs to making a cumulative loss of €45m from 2012-2014, EPL regulations allow clubs to make a cumulative loss of £105m over the same three year period (Conn, 2013). It appears that these regulations are a compromise in an attempt to reach a middle ground between clubs such as Manchester United, Arsenal, Liverpool and Tottenham Hotspur, who wanted a strict implementation of UEFA's €45m limit, and clubs such as Manchester City, who wanted no regulations at all (Conn, 2013).

There is also a broader compromise, between a vision of football that has clubs living within their means, and one that encourages owners to buy clubs and invest significant money in them to fund success. This compromise means that the English game is still open to such a model, albeit with owner investment limited to £105m over three years alongside investment in youth training and infrastructure. There are further implications here for the Football League and clubs that compete in Europe. The Football League FFP proposals are closely related to UEFA FFP and require clubs to break-even in order to meet them. The EPL regulations permit clubs to make cumulative losses of £105m up to 2014 meaning that, for the next few years at least, there will be further financial disparity between the EPL and the Football League. Furthermore, clubs in the EPL that regularly compete in European competitions will have to conform to UEFA FFP in order to obtain a European licence. Subsequently, this could produce a scenario where the financial playing field in the EPL remains distorted. A small number of clubs with genuine aspirations of qualifying for Europe would have to adhere to the stringent break-even principle outlined by UEFA whilst the other clubs in the league would be permitted to make losses of up to £105m in the next three years. It would appear, crudely, that the EPL is looking after itself first and foremost but the omission of regulations that apply to all clubs across Europe could prove to be a problem in future years.

The inconsistencies found in UEFA FFP are similar to the inconsistencies found in accounting regulations. As previously highlighted in chapter 2, there is no definitive framework currently in place as to how financial information should be reported. Subsequently, the formation and progression of FFP is closely linked to the conceptual framework of this thesis. The regulations put forward by FFP centre around basic accounting principles such as the break-even concept. However, financial information can be reported in different ways in different organisations so it will be difficult to maintain consistency with FFP when one considers the inconsistencies regarding accounting principles and practices and the way in which organisations record their financial performance. Indeed, many researchers have already challenged the principles of FFP and its subsequent merit including the lawyer who is responsible for the Bosman Ruling in professional football and other academics such as Flanagan (2013).

4.9 Sporting Performance in Professional Football

The rationale put forward above by UEFA and Deloitte suggests that it would be beneficial for a club's pay structure to be more strongly aligned to the club's on-pitch results. This relates back to the debate surrounding profit and utility maximisation and further underlines the fact that financial and sporting performance in professional football are intrinsically linked. In essence, UEFA are stating that the financial performance of football club should be driven by its performance on the pitch. In recent years, conversely, there have been examples of financial performance driving what happens on the pitch (i.e. the cases of Chelsea and Manchester City where a wealthy investor has injected money to pay for better players and higher wages in order to fund short term success on the pitch). To understand further how the two components (financial and sporting) are interlinked it is important to obtain an understanding of some of the factors that affect the sporting performance of professional team sports. Some of these factors have previously been mentioned briefly throughout chapters 3 and 4 and their implications on the thesis will now be considered further.

4.10 The relationship between playing success and financial success

Szymanski and Kuypers (1999) argued that there are three possibilities when considering the relationship between playing success and financial success (or, to use their definition, profit and performance). First, higher profits might automatically lead to better team performance and greater playing success might lead to greater profit, so that there would be no conflict between trying to satisfy the fans' desire for success or the shareholders' desire for profit. Second, playing success might be unrelated to profitability meaning that the pursuit of profit would not interfere with playing success or vice versa. Lastly, playing success might automatically lead to lower profits, in which case shareholders would have to decide upon the appropriate trade-off between profit and playing performance (Szymanski and Kuypers, 1999). Upon correlating the relationship between profit and league position for forty football clubs between the years 1978-97 Szymanski and Kuypers (1999) found little evidence of a powerful relationship between changes in league position and changes in profit, implying that there is no simple formula that relates financial success to success on the pitch. However, as stated by Szymanski and Kuypers (1999), in the past, when club directors did not place great emphasis on financial success, this did not matter. In recent years, directors have become more concerned with the creation of financial profits from football (Szymanski and Kuypers, 1999). Furthermore, financial performance can be measured by more than just the profit figure taken from the club accounts, just as playing performance can consist of a number of different variables in addition to league position. This thesis adds to the growing amount of literature on the subject by producing a model that incorporates a number of different variables, from both a sporting and financial viewpoint, that measure performance.

4.11 Summary

This chapter has analysed a number of issues, both sporting and financial, that are present in the modern day era of professional football. Despite the fact that performance measurement is discussed at length with regards to professional team sports, there is no generic framework in place that defines the Key Performance Indicators (KPIs) for professional football clubs. The Football Association and Deloitte (2002) did produce a guideline which outlined possible KPIs for football clubs but many of these indicators focused on factors that were internal to the business, making them difficult to relate to research studies owing to issues with access and availability of information. There is an argument that some of the areas outlined in this chapter can, to some extent, explain the lack of general KPIs in football. Differing ownership structures, financial business strategies and sporting performance objectives make it increasingly difficult to generalise across the industry, particularly without internal access to the business.

This chapter has also considered the differences in the way in which different clubs record revenues and costs and how there appears to be inconsistencies and loopholes in the UEFA FFP regulations. This outlines the links between this chapter and the conceptual framework chapter (2) that covers accounting principles. Owing to the inconsistencies that surround GAAP, reporting financial performance and more football specific issues such as UEFA FFP and ownership structure it is clear that it is difficult to compare organisations within this industry and that further issues surrounding reliability, validity and materiality are evident. Notwithstanding this, there are gaps within this literature that the thesis can exploit. The formation of a new approach to performance measurement and the formation of a new model that is derived scientifically and robustly can provide progression in this field. Owing to the fact that the conceptual framework for accounting is subject to so much confusion, a new methodological approach that focuses on making sure the right variables are measured would alleviate some of the concerns evident in the literature and provide an opportunity for data to be analysed in a way that has never previously been done.

Previously, for example, financial performance has been measured in professional football through certain aspects of ratio analysis being applied to football club accounts (see Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010 among others). Furthermore, this is a trend that has appeared previously when conducting financial analysis in other sports (see Shibli and Wilkinson-Riddle, 1997). This paper examined the financial accounts of county cricket clubs which comprised the first class county championship competition in order to analyse each club's respective financial position.

However, none of these papers considered whether the right variables were being selected, how they interacted with each other and which ones were more valuable to the analysis. This thesis builds on this approach by devising a model to measure performance that has been tested scientifically to ensure that the right variables are being considered. The gaps identified throughout the literature reviewed and in line with the purpose of a systematic review are now discussed below.

4.12 Identifying the gaps in the literature review

Given the volume of literature that has been analysed, this section outlines the gaps which appear and provides a summary of chapters 2, 3 and 4 to enable the progression of the thesis through to the methodology and results. Firstly, it is clear that the conceptual framework of accounting theory outlined in chapter 2 provides useful information as to how financial performance should be reported. However, there are issues surrounding the comparability between different industries. Different businesses will report financial information differently and whilst these procedures are acceptable under GAAP, it does not aid consistency and applying like-for-like comparisons across industries. Furthermore, even within industries there may still be inconsistencies and the thesis therefore applies rigorous methods of analysis to ensure consistency and comparability. One of these concerns has been alleviated by the decision to focus solely on the English professional industry for the purpose of this thesis.

It is also evident from the narrative literature review that performance measurement is an important aspect of professional football and that there are issues surrounding financial as well as sporting performance measurement. UEFA has attempted to combat poor financial performance with FFP but it is clear that there are inherent drawbacks to FFP and that it does not provide a holistic measure of a club's performance. The components measured by FFP are also linked to the conceptual framework for accounting and there are again issues with consistency here in relation to different clubs reporting financial information in contrasting ways. Furthermore, it was outlined in chapter 4 that there are currently no mutually accepted Key Performance Indicators (KPI's) for professional football clubs and that commentators on this subject have to select their own variables to measure when considering performance.

This problem was further magnified in the systematic review put forward in chapter 3 which found that, predominantly, the choice of variables used to measure performance and the weighting factors applied have been largely at the discretion of the authors. This confirms the findings of Kulikova and Goshunova (2013) who documented the most common variables used in studies relating to performance measurement in professional football and found that many authors use similar indicators of performance, but not all follow the same approach or framework. As such, table 11 has been produced to outline and summarise the gaps in the literature review and the subsequent progression to methodology.

Table 11 - Literature review gaps/issues

Gaps/Issues	Author(s)	Industries analysed	Method(s) of analysis	Subject of research	Variables used
1. Literature does not consider sporting factors and the relationship between financial and sporting performance. Furthermore, no weighting factors are applied.	(Andreff, 2007; Ascari and Gagnepain, 2006; Barros, 2006; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010; Wilson, Plumley and Ramchandani,2013).	English, French, German, Greek, Spanish and Portuguese football.	Ratio analysis.	Financial performance.	Debt, pre-tax accounting balance, liabilities, Revenues, costs, transfer expenditure, TV revenue matchday receipts, wage costs, pre-tax profit(loss), liquidity.
2. Literature considers limited financial factors and no weighting factors are applied.	(Andrikopoulos and Kaimenakis, 2009; Garcia-Sanchez, 2007; Gerrard, 2005; Kern and Sussmuth, 2005).	Football in general as well as Brazilian and English football specifically.	Organisational performance and intellectual capital, DEA, Resource Based View (RBV), Stochastic frontier analysis.	Financial and sporting efficiency and performance.	Return on equity, return on debt, win ratio, goals scored, goals against, league points, total attendance for whole season, attacking moves, shots on goal, ball recovery, playing talent, revenue, performance in domestic and European cups, wage costs, coach changes.
3. Literature offers little justification of the variables used other than that they are used in previous studies.	(Barros and Garcia-del-Barrio, 2008; Barros, Assaf and Sa-Earp, 2010; Guzman and Morrow, 2007; Haas, 2003).	English and Brazilian football.	Random stochastic frontier model and DEA.	Financial and sporting efficiency.	Operational cost, sales, attendance, price of labour, price of capital investment, total receipts, league points, total assets, wage costs, total revenue, staff costs, directors' remuneration, other operating expenses, salary of head-coach, population of the clubs' home town.

4. No weighting factors applied and the analysis is not undertaken in the football industry. This has implications for comparisons between the techniques used.	(Devinney, Yip and Johnson, 2010; Feng and Wang, 2000; Gapenski, 1996; Ponikvar, Tajnikar and Pusnik, 2009; Sueyoshi, 2005; Whittington, 2000).	General businesses as well as the airline industry, Slovenian manufacturing industry, American power/energy industry and the European steel industry.	Frontier analysis, ratio analysis, market value added (MVA) and economic value added (EVA).	Firm and financial performance.	Revenue, costs, customer satisfaction, debt, liquidity and profitability, cost of equity capital, market value and return on equity.
5. Despite considering weighting factors the authors outline that it has been commonplace for researchers to give equal weight to all variables. In these papers, weighting factors were decided at the discretion of the authors and were often related to qualitative measures.	(Fadhil Abidali and Harris, 1995; Romero Castro and Pineiro Chousa, 2006).	General businesses.	Z-score and ratio analysis.	Financial and non-financial performance.	Assets, revenue, debt, total liabilities as well as social and environmental performance.

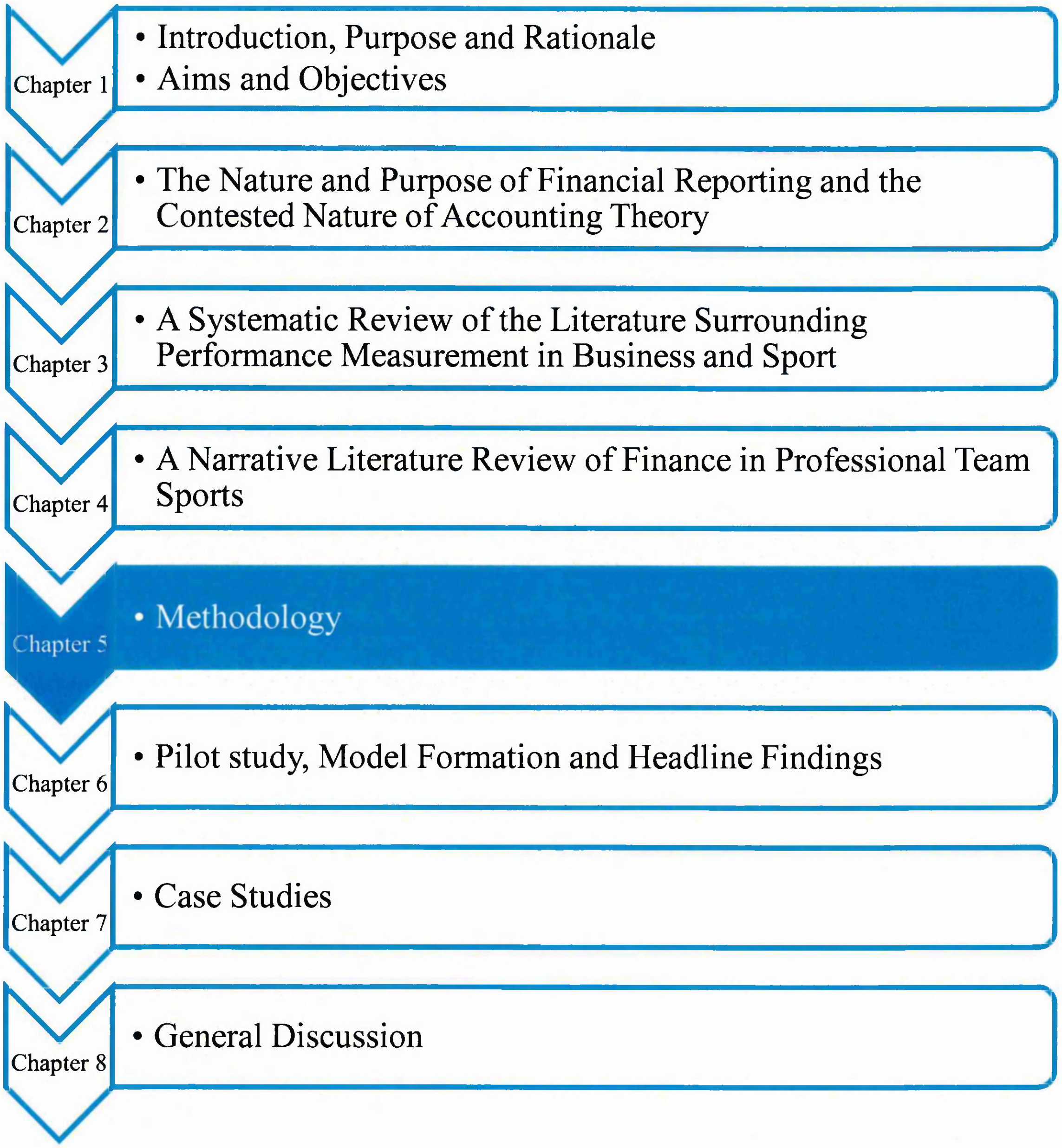
4.13 Summary

The evidence provided in table 11 outlines a number of potential gaps in the literature that has been reviewed. It is first notable that ratio analysis is more often than not used to measure financial performance. Often it is supplemented with further statistical approaches such as DEA although the basis for any financial analysis in the first instance appears to be ratio analysis. Second, it is clear that some studies consider the importance of weighting factors and others do not. Furthermore, when authors do consider weighting factors, there is no real justification of how they were assigned. The most substantial gap, however, is in the choice of variables used to measure performance. In every paper considered in the literature review and in table 11, there is no clear definition as to how variables have been selected, other than the fact that they are variables that have been used before in previous studies. This poses the question as to whether or not there is potential for a new method to be introduced in relation to performance measurement that considers the relationship between variables and places greater emphasis on the importance of weighting those variables. Based on the evidence of the literature review and table 11, this has not previously been done within academic literature.

The overall aim and objectives of the thesis (section 1.3) were derived through the process of reviewing the literature and identifying the gaps as documented in table 11. The central aim of the thesis put forward in section 1.3 is a direct result of there being no definitive model or set variables used to measure sporting and financial performance in previous research. Having identified the gaps present in the literature review in section 4.12 the thesis now progresses to discuss methodology in chapter 5 before chapters 6 and 7 cover the main findings. The choice of methodology adopted in chapter 5 is also influenced by the literature review and the ontological position around reviewing literature in the social sciences.

CHAPTER FIVE

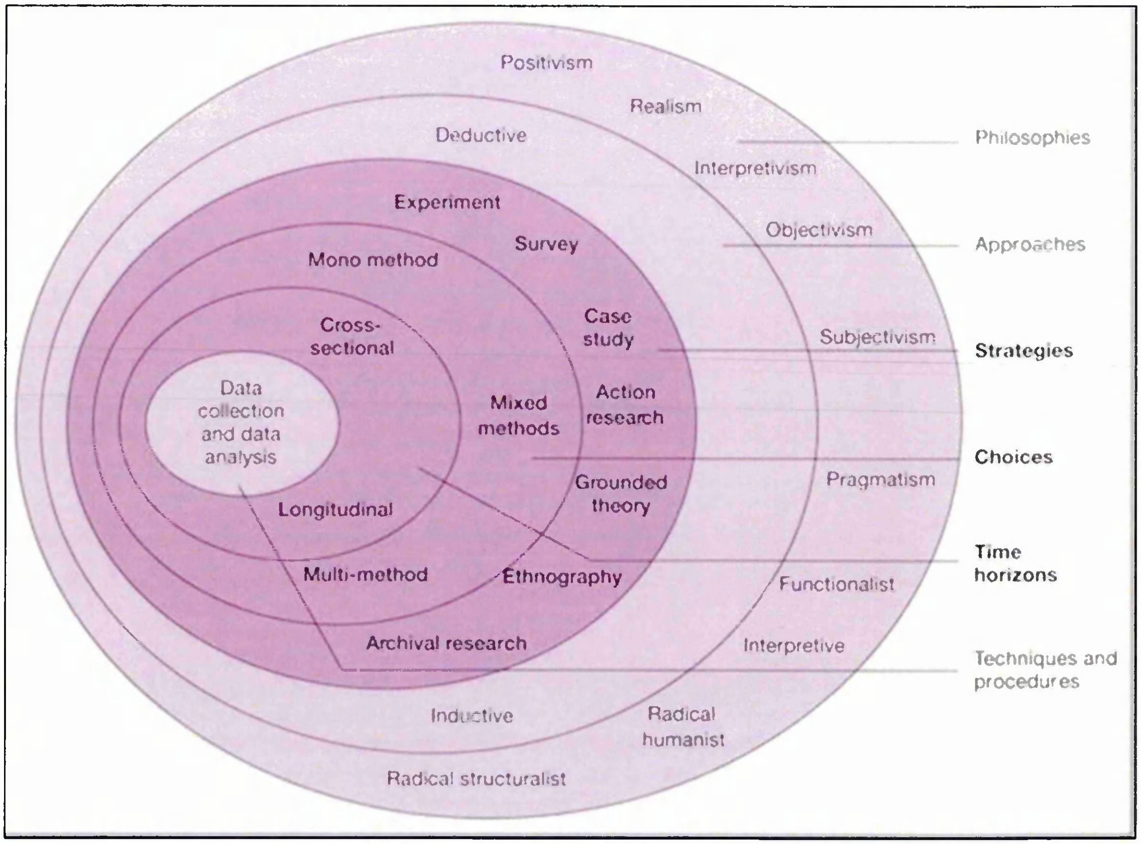
METHODOLOGY



5.1 Introduction

This chapter addresses the methodology for the thesis involving the philosophical considerations and the justification of the methods utilised within the thesis. Methodology provides the link between theory and method and is a vital element of the research process. Crotty (2003) suggests that there are four different elements that make up the research process. Firstly, epistemology or theory of knowledge leading secondly to the philosophical perspective, that is the philosophical stance informing the methodology. Thirdly, the methodology which becomes the design behind the choice of the use of methods leading lastly to the methods or techniques used to gather and analyse the data. It is also important that all these elements tie together in a logical manner (Crotty, 2003). In the discipline of management studies Saunders' 'research onion' is more often used (see figure 4). Within this 'research onion', the term 'methodology' is considered to include philosophy and the 'research onion' is a metaphor for describing the layers of a research process. The central layers reflect the need to consider research strategies and choices while at the centre of the onion data collection and analysis are the central concern (Saunders and Lewis, 2012). This chapter follows a similar layered process to discuss the methodology for the thesis beginning with an introduction to the philosophies of research before considering the approaches to research and strategies and choices and concluding with techniques and procedures.

Figure 4 - Saunders' 'Research Onion'



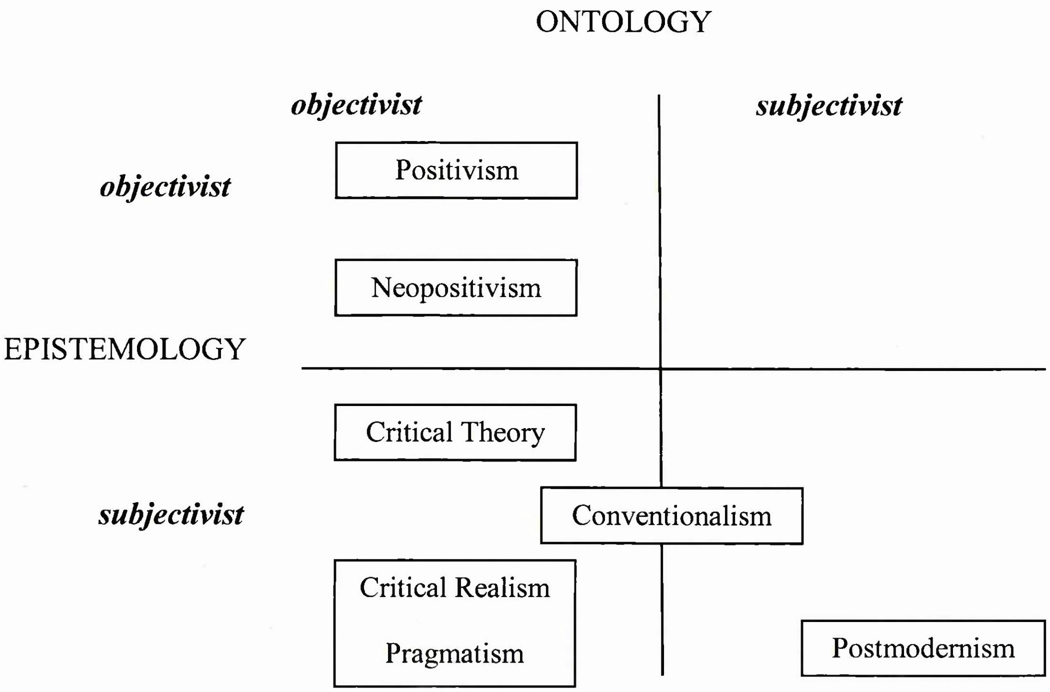
(Source: Saunders and Lewis, 2012: 103)

5.2 Philosophy and Research

Philosophy in itself is a difficult context and academics have stated in the past that there have been scientific problems with large philosophical content (see Williams and May, 1996). It is arguable that this is still the case in modern day research also. Philosophy and research do not just rely on each other; they are two different, yet complementary views of the world. Methodological decisions are implicitly based on the principles of epistemology and ontology. Johnson and Duberley (2000) argue that how we come to ask particular questions, how we assess the relevance and value of different research methodologies concerned with answering these questions, how we evaluate the outputs of research, will all vary according to each individual's own underlying epistemological beliefs and values. Despite the fact that such commitments often remain unrecognised by the individual, such epistemological commitments are a key feature of an individual's pre-understandings which influence how individuals make things intelligible (Johnson and Duberley, 2000).

Epistemology is usually understood as being concerned with knowledge about knowledge or more simply 'how we know what we know' (Johnson and Duberley, 2000) whilst ontology is the study of being and 'what is' (Crotty, 2003). Epistemological considerations usually centre on concepts such as positivism and critical realism. Juxtaposed to this are ontological considerations concerned with the nature of social entities. Here the question is whether social entities can and should be considered objective entities that have a reality external to social actors, or whether they can and should be considered social constructions built up from the perceptions and actions of social actors, positions that are frequently referred to as objectivism and constructionism respectively. Ontological and epistemological assumptions are often closely intertwined and for most practical purposes it is difficult to think of them otherwise (Thomas, 2004). With reference to this, it is worth considering the typology of research philosophies put forward by Johnson and Duberley (2000) in figure 5 which visualises how certain epistemological paradigms interact and intertwine with one another.

Figure 5 - Reflexivity and management research



Source: (Johnson and Duberley, 2000: 180)

Figure 4 outlines where some of the broad research traditions fit with reference to the relationship between epistemology and ontology and it is evident that in certain areas there is overlap between the research traditions. Such overlap, it could be argued, is inevitable, particularly with the increasing prominence of the mixed methods approach to research, yet often researchers attempt to locate themselves within one research tradition rather than considering the qualities that other traditions can offer. Generally, there is a tendency for researchers to define themselves in terms of differentness (Alasuutari, Bickman and Brannen, 2008). However, as Bryman (2008a) goes on to argue, while these differences are referred to as paradigms or philosophical positions in practice they often represent technical decisions about the use of methods - quantitative or qualitative. Originally, at least, however, it is established that there are four distinct paradigms and four traditional approaches to management research (outlined in table 12 below).

Table 12 - Four approaches to management research

Knowledge - constituting assumptions					
Modes of engagement in management research	**Ontological status of human behaviour/ action**	**Epistemology**	**Ontological status of social reality**	**Methodological commitments**	**Examples of research questions**
1. Positivism	Determined	Objectivist	Realist	Quantitative methods to enable *erklaren*	What are the causes of variable *x*?
2.Neo-empiricism	Meaningful - inter-subjective	Objectivist	Realist	Qualitative methods to enable *verstehen*	How do people inter-subjectively experience their worlds?
3.Critical Theory	Meaningful - inter-subjective	Subjectivist	Realist	Qualitative methods to enable a structural phenomenology or critical ethnography	How do people inter-subjectively experience the world in a particular socio-historical period and how can they free themselves from this domination?
4. Affirmative Postmodernism	Discursive - inter-subjective	Subjectivist	Subjectivist	Qualitative methods to enable deconstruction	How and why are particular inter-subjectively derived discourses being voiced while others are silenced?

Source: (Johnson et al. 2006: 134)

Positivism, labelled broadly, embraces any approach which applies scientific method to human affairs conceived as belonging to a natural order open to objective enquiry (Hollis, 1994). Positivism is thus, a scientifically orientated form of empiricism and holds the view that all knowledge is scientific, in the sense of describing the coexistence and succession of observable phenomena. The belief that science can produce objective knowledge rests on two key assumptions. Firstly, there is an ontological assumption that there is an objective reality 'out there' to be known and secondly that it is possible to remove all subject bias in the assessment of that reality (Johnson and Duberley, 2000). Put simply, positivists believe that theory can be tested against irreducible statements of observation - the 'facts' in other words. A further element of positivism is that by following a hypothetico-deductive model connected by logical rules it can be argued that A causes B (Hughes and Sharrock, 1997) and many hypotheses within positivistic research mirror this statement.

Within the context of certain pieces of research, positivism has its undoubted strengths, most notably in terms of its precision, control and objectivity. Sports management researchers often favour this approach to research and traditionally support the argument above that there is hardly ever any doubt about the results obtained from positivist research and that through such precise control and measurement it is possible to suggest that A causes B for example (Gratton and Jones, 2004). Many academics, Sarantakos (2005) included, concur with this viewpoint and add that a central principle of positivism is its close relation to objectivism and empiricism which adheres to the notion of absolute truth and the claim that knowledge comes through sense experience. Furthermore, Robson (2002) declares that positivism is more often referred to as the 'standard view' of science and that statistical analysis removes the need for more individualistic or intuitive interpretation, and more often than not the interpretation is clear cut. Positivist research is also easier in terms of planning and data collection (Gratton and Jones, 2004). Nevertheless, despite its strengths, positivism has many critics particularly in the social research field. Many of these are put forward by Robson (2011) who states that there are doubts surrounding the claim that direct experience is a sound basis for scientific knowledge and that there is also a rejection of the view that science should deal only with observable phenomena, and not with abstract or hypothetical entities. Furthermore, critics argue that it is near impossible to distinguish between the languages of observation and theory and that theoretical concepts do not have a 1:1 correspondence with 'reality' as it is observed. There are also critiques from sports researchers themselves who state that sport, in itself, is a social phenomenon and those that participate in, watch or manage sports are acted upon by a number of external social forces and people have the freedom to react to such forces in an active way (Gratton and Jones, 2004).

Notwithstanding such criticism, a positivistic nature of enquiry was the logical choice for this thesis. This stems largely from the research field in which the study fits - sport management. Positivistic studies continue to be the most likely to become published pieces of work. Despite postmodernism becoming the buzzword of contemporary society in the 1990s and the case for qualitative research being put forward by Morgan and Smircich (1980) there are very few sport management research studies written from a postmodern perspective. Staunch positivists such as Donaldson (2003) have offered numerous critiques of postmodernism stating that it is a nihilistic position that can, according to its own view, only offer endless critique and reinterpretation. No positive, new theory can be introduced by it and Donaldson (2003) goes on to argue that organisations should continue to pursue the conventional approach which can be just as fruitful.

Whilst the case for positivistic research still remains, the author also acknowledges the need for subjectivity within research design and construction. This thesis therefore sits within the north-west quadrant of the Johnson and Duberley (2000) typology but it also crosses over into the paradigm of neo-empiricism or post positivism and a quote from Gill and Johnson (2010) perhaps captures the essence of this thought process;

> "For both positivists and neo-empiricists (i.e. qualitative positivists) warranted knowledge about the world emanates from social reality, that is an external world directly and objectively accessible through human sensory experience provided that the right methodology is used." (Gill and Johnson, 2010: 197).

Robson (2011) also covers the concept of post positivism and states that;

> "As with positivism, post-positivism is not a unitary school of thought, but more a group of theorists who share some but not all of a range of views." (Robson, 2011: 22).

While positivists held the view that the researcher and the researched were independent of each other, there is an acceptance amongst post-positivists that the theories, background knowledge and values of a researcher can influence what is being observed (Reichardt and Rallis, 1994). Post-positivists therefore believe that a reality does exist but they consider that it can only be known imperfectly and probalistically in part because of the researcher’s limitations (Robson, 2011). Many of the characteristics that hold true for post-positivistic research also hold true for the proposed research thesis, in particular the characteristics put forward by Phillips and Burbules (2000) who state that methods and conclusions should be examined to reduce possible bias and establish reliability and validity and that evidence in research is always imperfect and fallible. Furthermore, although there is no absolute warrant for knowledge we should be guided by the best evidence we have at the time (Robson, 2011). This is particularly relevant in the context of published financial statements which provided the main source of data for the thesis. The annual accounts only provide a snapshot of an organisation's business performance at a certain point in time. However, for the purpose of this research they are the most available and up to date resource. Furthermore, the presence of the accounting framework outlined in chapter 2 means that they can also be scrutinised with relevant consistency which is closely bound to the issues of reliability and validity. Indeed, issues of validity are closely bound to matters of measurement in quantitative research (Thomas, 2006).

The fact that sport is such a unique area of study means that different paradigms and research methods will be found in different areas of sports research. The study of sport requires a tremendous appreciation of so many different things (Smith, 2010). If one were to venture into the social side of sport, for example sports psychology or sports sociology, reality would be viewed from a constructivist position and one would assert that social phenomena are not independent of social influence and one would therefore search for 'social meaning', being aware that reality is in a state of flux and revision (Smith, 2010). This thesis, however, fits within the positivist approach to research and positivistic research dominates the sport management field and is often the only research paradigm that is considered. Furthermore, the choice of methodology for this thesis is formed largely through the philosophy of the methodological approach taken in the systematic review. As stated in the introduction to the systematic review (pg. 35 para. 1) the application of a systematic review is highly positivistic in nature. However, in the management field which fits more within the social sciences there is an ontological position to not privilege one research approach over the other. This position was considered in the literature review by considering an additional narrative review of literature. A similar philosophy, influenced by the literature review, is formed in the methodology for this thesis. The study remains rooted in positivist paradigm but there is cross-over into other paradigms to reflect that the discipline of sport management is a social science (see section 5.4 for further discussion on the choice of methodology for the thesis). The following sections outline the different methodological practices that are most commonly used, highlighting both their strengths and weaknesses before focusing directly on the methods that are used in this thesis, alongside the data collection and analysis techniques utilised.

5.3 Approaches to Research

Within many of the sports management research texts (see Gratton and Jones, 2004; Smith, 2010 and Veal, 2006) there are two very broad methodological approaches to research. These are quantitative and qualitative and such approaches are typically split according to whether numerical data is collected or not (Smith, 2010). It must be noted, however, that there are many other differences that distinguish quantitative and qualitative research approaches. The debate between quantitative and qualitative methods is considered here in addition to the debate surrounding inductive and deductive research methods. The section finishes with a summary of the mixed methods approach to research which has gained prominence in recent years.

5.3.1 Quantitative vs. Qualitative

Quantitative research has often been outlined as the distinctive and dominant research strategy. In its broadest sense, it was described as entailing the collection of numerical data, as exhibiting a view of the relationship between theory and research as deductive and as having an objectivist conception of social reality (Bryman, 2008b). Such objective measures are generally, though not exclusively, numerical in nature. The use of numerical measurement involves measurable 'quantities', hence the term quantitative and is closely aligned to the positivistic approach to research (Gratton and Jones, 2004). Qualitative research, on the other hand, is more concerned with words rather than numbers and incorporates meanings that are not quantifiable such as feelings, thoughts and experiences. Furthermore, unlike quantitative research, the issue of 'how many' is not relevant (Gratton and Jones, 2004). The difference in these two approaches is best outlined in table 13 below, taken from Neuman (2011).

Table 13 - Quantitative versus Qualitative Approaches

Quantitative Approach	*Qualitative Approach*
Measure objective facts	Construct social reality, cultural meaning
Focus on variables	Focus on interpretive processes, events
Reliability the key factor	Authenticity the key factor
Value free	Values present and explicit
Separate theory and data	Theory and data formed
Independent of context	Situationally constrained
Many cases, subjects	Few cases, subjects
Statistical analysis	Thematic analysis
Researcher detached	Researcher involved

Source: (Neuman, 2011: 17)

Both approaches have their respective strengths and weaknesses. Quantitative research takes most of its strengths from the fact that it involves testing hypotheses that are constructed before the data is collected. This means that the research findings can be generalised when the data is based on random samples of sufficient size. Generalising research findings can also help when replicating the study on many different populations and groups (Johnson and Onweugbuzie, 2004). Furthermore, data collection using quantitative methods is relatively quick and provides precise, quantitative, numerical data. Data analysis is less time consuming, the results are relatively independent of the researcher and it holds greater credibility with many people owing to the fact that it provides statistical measures of analysis (Johnson and Onweugbuzie, 2004). Conversely, its downside is that the researcher's categories and theories used may not reflect others' understandings and that occurring phenomena may be overlooked because of the focus on theory testing rather than theory generation. Qualitative data collection overcomes this problem by providing an understanding of people's personal experiences of phenomena which can be described in greater detail. It is useful for studying a limited number of cases in depth and is particularly useful for describing complex phenomena. Qualitative research is often a very dynamic process and qualitative researchers are responsive to changes that occur during data collection and allow for shifts in focus as a result of this (Johnson and Onweugbuzie, 2004). This can, however, lead to less transparency in the analysis stage and makes analysis more time consuming. It also opens the study up to be influenced by the researcher's potential bias and idiosyncrasies which subsequently leads to debates surrounding its credibility.

5.3.2 Deductive vs. Inductive

Deductive research, put simply, involves the development of an idea, or hypothesis, from existing theory which can then be tested through the collection of data and is more generally associated with positivist and quantitative research (Gratton and Jones, 2004). Gill and Johnson (2010) offer a similar definition;

> "...deduction entails the development of a conceptual and theoretical structure prior to testing through empirical observation of the facts 'out there' in the world through data collection" (Gill and Johnson, 2010: 46).

Many research methods follow a deductive logic - though they often vary considerably - and the general process of deduction more often than not follows three specific stages; the use of concepts and hypotheses (so the researcher can decide which concepts represent important aspects of the theory or problem under investigation), operationalisation (the process of defining an abstract concept in such a way that rules are laid down for making observations and determining when an instance of the concept has empirically occurred) and testing theory (where the assertions or predictions put forward by the hypothesis are compared with the 'facts' collected by observation (Gill and Johnson, 2010)).

An inductive approach to research works the opposite way to deductive research, moving from specific observations to broader generalisations and theories (Gill and Johnson, 2010). To define induction as the reverse of deduction, however, would be naïve and narrow minded. For example, many researchers who support the inductive logic find explanations of social phenomena relatively worthless unless they are grounded in theory or observation (see Glaser and Strauss, 1967). Whilst the emphasis is still on *erklaren* (explaining) rather than *verstehen*, (understanding) there is an increasing crossover between the two areas of logic.

5.3.3 Mixed Methods

Despite the assumption that the combining of different methods within a single piece of research raises the question of movement between paradigms at the levels of epistemology and theory, there has been an undoubted rise in the use of a mixed methods approach to research. It has also been referred to as the 'third methodological movement' behind quantitative and qualitative despite the claim by Bryman (2003) that mixed methods research should not be regarded as a new approach. However, a set definition is yet to be introduced with the closest most recently being provided by Creswell and Plano Clark (2011);

> "Mixed method research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis and the mixture of qualitative and quantitative approaches in many phases of the

> research process. As a method, it focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone." (Creswell and Plano Clark, 2011: 5).

This definition fits comfortably with an argument put forward by Brannen (2003) who stated that quantitative research is typically associated with the process of enumerative induction whilst qualitative research has typically been associated with analytic induction. This is often, wrongly, classed as 'unscientific' because of the association of enumerative induction to the natural sciences. Sometimes, though, analytic induction may combine a deductive logic of enquiry. Likewise, quantitative research does not always test hypotheses; its goal is often descriptive (Brannen, 2003). Bryman (2003) does reason that the two concepts are inherently different; otherwise there would be no point in even discussing the possibility of combining them. They each have distinctive characteristics that make the possibility of combining them especially attractive and despite the criticism that combining methods raises the question of movement between paradigms it does offer some benefits. Its main strength is that it provides strengths that offset the weaknesses of both quantitative and qualitative research. Thus, the combination of strengths of one approach makes up for the weaknesses of the other approach and vice versa (Creswell and Plano Clark, 2011). Despite this, mixed methods research does have its critics, most notably through the idea that research methods carry epistemological commitments, and the idea that quantitative and qualitative research are separate paradigms. Therefore, since paradigms are incompatible, the integration of methods is only at a superficial level and within a single paradigm (Bryman, 2008b).

5.4 Research Strategies and Choices of the Thesis

The methodology for the thesis is most compatible with the quantitative approach to research. However, whilst the data collected is almost exclusively quantitative, the thesis does not put forward a theory to test in accordance with the deductive research approach. The methodology for the thesis is therefore best described as an analytic inductive process following a deductive logic grounded in quantitative data collection in order to produce new theory. It is inductive in relation to the formation of the model where observations and patterns taken from the literature review are used to form new theory, yet the testing of the subsequent data and results applies a more deductive logic to produce confirmation.

5.5 Methods

The following section outlines the primary methods that were used during data collection, the advantages and disadvantages of the chosen methods and the justification behind the choices. For the purpose of this thesis the main method is the collection of secondary data. Discussion around the method of secondary analysis as a form of data collection is presented as part of this chapter.

5.5.1 Secondary Data Analysis

Secondary analysis is a highly fruitful research tool which is often overlooked not just by students, but also by social researchers and government organisations. Bryman (2008b) provides a definition of what secondary analysis entails;

> "Secondary analysis is the analysis of data by researchers who will probably not have been involved in the collection of those data, for purposes that in all likelihood were not envisaged by those responsible for the data collection. Secondary analysis may entail the analysis of either quantitative data or qualitative data." (Bryman, 2008b: 296).

Robson (2011) notes that secondary analysis can be an attractive strategy as it permits the researcher to capitalise on the efforts of others in collecting the data. It therefore provides the advantage of allowing the researcher to concentrate on analysis and interpretation. It also yields multiple benefits to the researcher including time and cost, the ability to obtain high quality data and the opportunity for longitudinal analysis. The benefit of timing and cost is straightforward as the data costs less to collect and can be collected in less time. The quality of the data is considered to be reliable and valid as samples are often national samples across the country which cover large samples of people and the opportunity for time series analysis offers something which is rather rare, particularly within the social sciences due to cost and time constraints (Bryman, 2008b). Bryman (2008b) also notes the advantage of secondary analysis in providing opportunity for subgroup analysis because of the size of the dataset and also the opportunity for cross-cultural analysis. Furthermore, both Bryman (2008b) and Veal (2006) note the opportunity of re-analysis which may offer new interpretations or 'serendipity' as Veal classifies it. This relates to new findings that may occur through re-analysis of data.

Limitations of secondary analysis include a lack of familiarity with the data or indeed the complexity of the data being studied (Bryman, 2008b). There is also no control over the data quality and, furthermore, the data or statistics may be inappropriate for the research question (Nueman, 2011). The same author also considers a further danger which stems from quoting statistics in excessive detail (i.e. using too many digits) to give others an impression of scientific rigour. This can lead to the fallacy of misplaced concreteness which occurs when the impression of precision is made by quoting statistics in more detail than is necessary and subsequently 'overloading the details' (Neuman, 2011).

The fallacy of misplaced concreteness is linked to one of the largest concerns associated with secondary analysis; the reliability and validity of the data. As previously discussed, Thomas (2006) noted that the issue of validity is closely bound up with the matter of measurement in quantitative research. Reliability problems can also plague existing statistical research, particularly when official definitions or the method of collecting information changes over time (Neuman, 2011). The concept of reliability and validity in accounting data has also been highlighted in chapter 2 and reliability and validity in a research sense are discussed in more detail below.

Despite these concerns, the use of secondary analysis was appropriate considering the nature of the thesis. This is because the majority of the data required for the thesis is found in the published financial statements of the organisation. Published financial statements fall within the category of financial accounting which is always based in the past. Published financial statements cannot provide answers as to how an organisation may perform in the future. Subsequently, secondary analysis of historical data was the most logical research approach for the thesis. Notwithstanding this, secondary analysis and the use of official statistics have been controversial in the social research field. However, since this thesis has no social elements attached, this is less of an issue and it also signifies that there are very few ethical issues attached to the methods being utilised. The framework for the analysis takes its origin from a previous Microsoft Excel spreadsheet first used by Wilkinson-Riddle and Barker (1988) and adapted from Shibli and Wilkinson-Riddle (1997) when it was used for an analysis of the financial health of English cricket clubs.

5.6 Reliability and Validity

Two key concepts under which research is assessed are reliability and validity and these two terms are often used to evaluate how 'truthful' a piece of research actually is (Gratton and Jones, 2010). Firstly, reliability generally refers to the consistency of the results obtained, and there are three forms of reliability that are of significance importance to the researcher; inter-observer reliability, test-retest reliability and internal consistency reliability (Gratton and Jones, 2010). Inter-observer reliability assesses the extent to which different observers would give similar scores to the same phenomenon and becomes increasingly important if there are a number of people involved in data collection for a research project. Test-retest reliability is the extent to which the research would provide the same measurements if reported at a different time whilst internal consistency reliability refers to the extent to which each question within a measure is actually measuring the same phenomenon (Gratton and Jones, 2010). Field (2009) also highlights the relevance of test-retest reliability by stating that the easiest way to assess reliability is to test the same group of people twice (assuming the measurements are not variables which will alter over time). There are also a number of potential threats to reliability which include subject error, researcher error and subject bias (Gratton and Jones, 2010). The thesis draws on Field's (2009) thoughts on test-retest reliability by constructing a pilot study in chapter 6. Such a pilot study ensures that the data analysis could be replicated in future research.

Validity is much more complex in its nature and is important within research as it outlines to what extent the methods used are justifiable to measure what is attempting to be measured. Veal (2011) states that "validity is the extent to which the information collected by the researcher truly reflects the phenomenon being studied" (Veal, 2011; 41). Validity has several different components including *face validity, content validity, predictive validity and construct validity* (see Gratton and Jones, 2010). Of these, the most rigorous form of validity is construct validity which questions whether the data collected correlates with other measures and the aim of any research project should be to ensure this as much as possible throughout the duration of the project. Although reliability and validity are discussed here as separate concepts, there is an important relationship between the two and it is the aim of the researcher to ensure that the data collected is both valid and reliable. There is a need to identify a measure that accurately reflects the phenomenon, and results in the same score at different times (Gratton and Jones, 2010). As previously stated, the thesis ensures reliability and validity in the data by constructing a pilot study to measure consistency within the data being analysed. The quantitative measures used are proxies for financial and sporting health and the techniques used in the pilot study to check the validity of the data means that the author can be confident that the thesis measures what it set out to measure in the aims and objectives. The Bartlett and KMO tests conducted in the pilot study measured the sphericity and sampling adequacy of the data and both returned results that were favourable indicating the validity of the research study.

5.7 Interpreting Annual Reports and Financial Information

Increasingly, financial tools such as ratio analysis (as discussed in chapter 3) are being used to investigate complex business problems. The application of such tools firstly derives from data extracted from a company's annual financial report. Financial reports are of interest to users both internal and external to a business organisation (Tyran, 1986) and it is the principal way in which shareholders and others keep themselves informed of the activities, progress and future plans of the company. However, the reports communicate very little in isolation and without adequate analysis these reports may not be fully useful to their recipients. Subsequently, statistical analysis plays a vital role in the everyday financial environment by enabling a business to handle its growth, compete in the marketplace and develop financial strategies in pursuit of financial stability and to evaluate and interpret the accomplishment of performance goals (Tyran, 1986). Statistical analysis in its simplest form is first conducted by calculating ratio analysis. The elements of ratio analysis and performance measurement, alongside the regulations for financial reporting, have previously been covered in chapters 2 and 3.

In addition to the literature highlighted in chapter 3, many academic texts refer to the processes of ratio analysis (see Atrill, 2009; Dyson, 2004; Glautier and Underdown, 2001; Wilson, 2011 among others) and the ratios calculated are normally divided into five different sections under the headings of growth, profitability, liquidity, return on capital employed (ROCE) and Defensive Positioning (Wilson, 2011). These five headings and their relevance to the performance of professional football clubs are outlined in more detail in appendix 3.

5.7 Cash Flow Statements

The cash flow statement is the third key financial statement that companies quoted on the stock exchange are required to produce (Johal and Vickerstaff, 2012) alongside the income statement and balance sheet. The importance of cash cannot be understated in relation to the company. First, companies need to have cash to survive, and second, companies need to be able to access cash in order to survive (Johal and Vickerstaff, 2012). If a company lacks cash, the result is often a bankruptcy as the company concerned would not have sufficient cash to carry on trading. It is also important to consider the differences between cash and profit. Organisations cannot trade on profit terms - they must trade on cash terms (Wilson, 2011). Cash is required to pay for assets, settle debts, pay employees, pay out dividends to shareholders and to take advantage of potential investment opportunities. The purpose of the cash flow statement is to provide users of accounts (see chapter 2) with information on cash receipts and cash payments to provide a picture of the cash inflows and outflows of the company (Johal and Vickerstaff, 2012). Subsequently, this provides the users of accounts with information as to whether the company has enough cash to survive and many researchers include cash flow statement information in their calculations of the net funds/(debt) figure for an organisation.

5.8 Post Research Evaluation

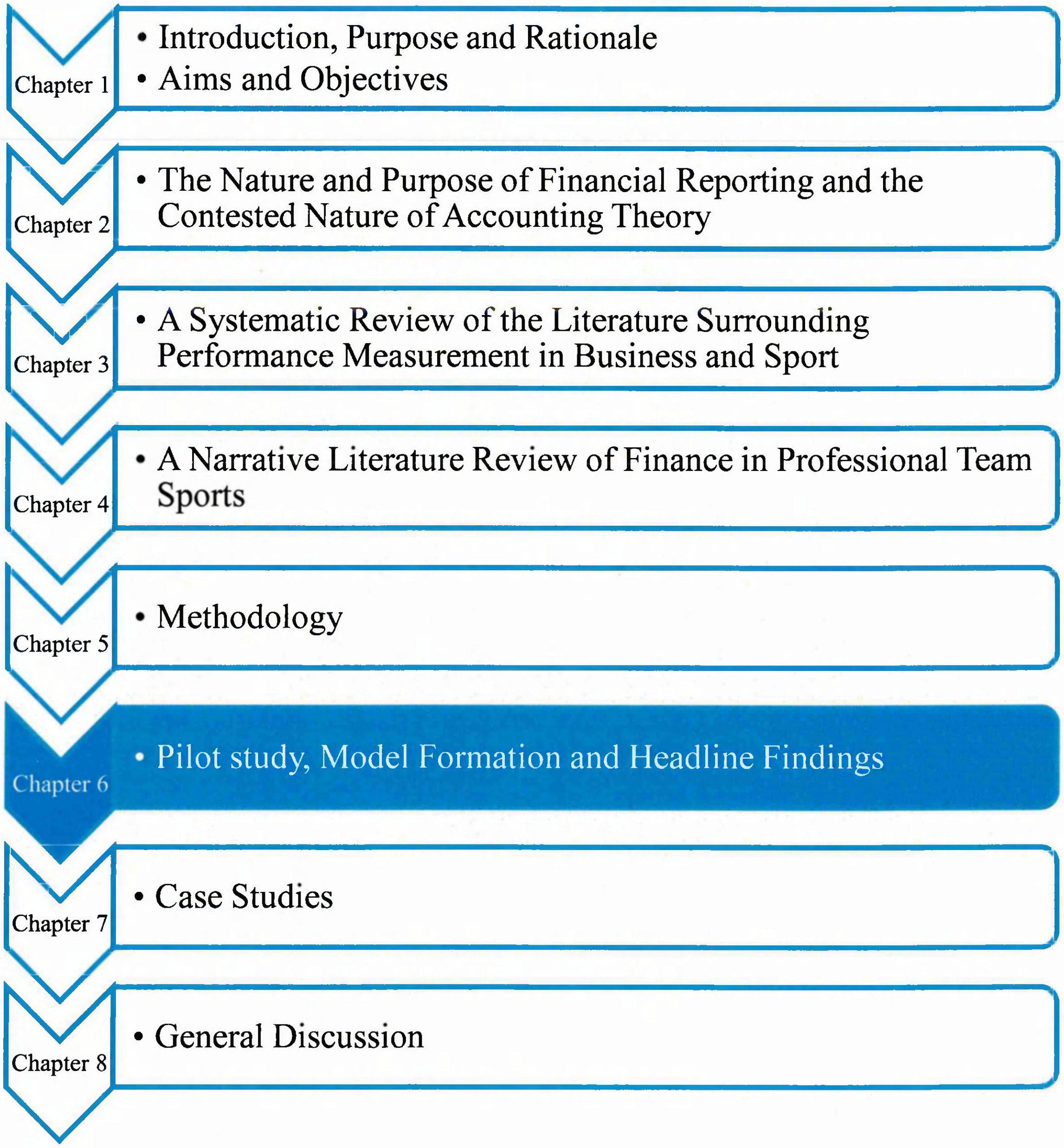
Based on the techniques used to construct the pilot study and subsequent model, the author is assured of the reliability and validity of the data. Numerous tests and procedures have been applied to make sure that the results obtained provide an accurate reflection of a clubs' performance over the years analysed. If the thesis were to be replicated using similar procedures, it is anticipated that the researcher would obtain the same results. If the author were to change anything it would be within the first selection of the variables. A more objective approach would have been to gain opinions from professional and academic experts in the field as to which variables they saw as being important. However, this was outside the scope of this thesis and the author remains confident, based on the gaps identified in the literature review, that similar variables would have been selected as these were the ones that were most commonly used in previous research.

5.9 Summary

This chapter has identified and analysed the philosophical and theoretical issues surrounding research and the choices of methodology and methods available to researchers. It is paramount for researchers to select the appropriate methodology that provides the best fit for the research thesis as the choice of methodology and methods has implications for the reliability and validity of the research study. At this point, the thesis has introduced the key issues in the research area and produced an extensive literature review that has identified gaps within the current research. The contested nature of accounting theory analysed in chapter 2 is linked to the way in which financial performance has been analysed in professional team sports in chapters 3 and 4. In light of this, the literature review concluded that there was currently no definitive system in place that measured both financial and sporting performance without some slight subjectivity. With reference to the narrative outlined in this chapter (5) the thesis now proceeds to formulate a new approach to performance measurement that attempts to eliminate the element of subjectivity found in previous research. Owing to the fact that different financial information is reported in different ways by different organisations, the first task was to ensure that the right financial data was being included for analysis. In order to achieve this, the thesis utilised the concept of test-retest reliability (Field, 2009) to first consider two different datasets of financial information and to outline the differences between them both and their subsequent validity and reliability. This process also helped overcome the issues surrounding materiality discussed in chapter 2 (p.28, para.2). Following this, a similar approach was taken with the sporting variables. This process was far more exploratory than the financial variable approach owing to the fact that some of the sporting variables had never been considered in previous research. Once, the variables had been determined a pilot study was conducted with one year's worth of data to ensure the validity of the findings before the thesis could proceed to a full study. The subsequent chapter (6) documents this process.

CHAPTER SIX

PILOT STUDY, MODEL FORMATION AND HEADLINE FINDINGS



The following two chapters present the results of the study. First, Chapter 6 documents the pilot study which subsequently progresses to the formation of the model. As mentioned in the summary to chapter 2 (p.31), the model formed is a product of the overarching conceptual framework of the thesis. The formation of the model also answers the overall aim of thesis (see 1.3) in terms of providing a new approach to performance measurement. Following this, the headline findings from the full dataset are discussed. Chapter 7 then presents a case study approach to data analysis that allows the study to breakdown some of the underlying issues that are apparent in the headline findings. In addition to the aim of the thesis, the objectives of the study are restated at the beginning of each chapter to outline how the results produced have achieved the objectives outlined in section 1.3. Additionally, a summary detailing the contribution to knowledge is provided within the conclusion of each chapter. Chapter 6 is closely aligned to objectives 1, 2 and 3 restated below from section 1.3.

Objective 1: To use the English professional football industry as a pilot for the derivation of a model.

Objective 2: To produce a set of measurement variables that incorporate both financial and sporting factors that have been determined through rigorous scientific processes.

Objective 3: To measure holistic performance within the English football industry by ranking clubs against each other to highlight which clubs perform better than others when tested within the model.

6.1 Pilot Study - Year 2008

One of the main reasons behind conducting the pilot study is the assumption that financial homogeneity would be reasonably apparent within the annual reports of professional football clubs. A similar strategy was employed by Shibli and Wilkinson-Riddle (1997) in their investigation into the financial health of English county cricket clubs. However, a more rounded approach takes into account that these assumptions may be too ambitious and Owen (1994) further cited caution in this area:

> "Even more difficult to compare are two businesses in the same sector which are likely to have entirely different accounting methods." (cited in Shibli and Wilkinson-Riddle, 1997: 7)

This statement is further supported by the evidence outlined in chapter 2 in relation to the accounting regulations and applied policies. Indeed, within UK GAAP there is still presently no agreed definition on what accounting practices can be classed as generally accepted. The fact that GAAP, particularly in the UK is a dynamic, ever changing situation means that any financial data that is to be considered for analysis must first be scrutinised against the principles of reliability and validity outlined in chapter 2 (see Power, 2010). It was therefore decided to conduct a pilot study to determine which form of analysis should be undertaken and on which accounts the study should focus. One of the first variances encountered in the accounting data between clubs was the year end dates which were considered first. The pilot study was undertaken using the twenty clubs that competed in the EPL in the 2007/2008 season. This season was selected at random although it had to have been a year that was part of the EPL era and post 2000 when new accounting standards were introduced and the way in which clubs recorded financial performance changed. West Ham United are absent from the analysis due to the fact that its financial statements had not been submitted in time to make the 2008 edition of Deloitte's Annual Review of Football Finance. Firstly, the pilot study considered the year end dates of the published financial statements for all clubs involved to ensure consistency in when clubs were reporting their financial information. If the year-end dates of the published financial statements are the same or similar, it will mean that the data within them is comparable between all teams.

Table 14: Clubs' year end dates

Year End	Number
Dec 07	1
May 08	6
June 08	9
July 08	2
Aug 08	1
Total	19

The distribution of year end dates is shown in Table 14. Although the maximum variation appears high, the two outliers in Dec 07 (Middlesbrough) and Aug 08 (Birmingham City) do not affect the consistency of comparisons in practice. The domestic football season runs from August until May so Middlesbrough effectively becomes the only outlier. However, the Middlesbrough data is taken from the Dec 07 point (at the discretion of the author), whilst the season is still on-going. It is envisaged that, for the purpose of the pilot study and a one year dataset, this will maintain consistency with the clubs that have year-end dates stated in their accounts that are after the completion of the on-pitch season.

The main reason for applying a pilot study comes from the differences in ownership structure at individual professional football clubs in England (see for example, Walters and Hamil, 2010). Many of the larger clubs in England have holding accounts or parent companies which form part of the ownership structure of the club. These accounts can be categorised as part of the company's 'group' and by definition will therefore have an impact on the financial performance of said club. Subsequently, there will be a difference in the financial results of a company depending on which set of accounts are examined. Deloitte in their 'Annual Review of Football Finance' publication use the annual financial statements of the legal entity registered in the United Kingdom which is the 'top' ownership structure in respect of each club to produce their figures. Deloitte also state that in a few cases they make adjustments to the figures to enable, in their view, a more meaningful comparison of the football business on a club by club basis over time. For instance, Deloitte, at times, have excluded non-football activities or capital transactions from revenue. This means that, ultimately, Deloitte sometimes adapt their figures to conduct their analysis. This is completely acceptable for the purpose of their publication but does not aid like-for-like comparisons from a theoretical point of view. It provides clear evidence of non-comparability and also has further implications for the reliability of financial information, previously discussed in chapter 2. Financial information must be deemed relevant and reliable when presented in the financial statements of organisations (International GAAP, 2005) and the pilot study was derived to test for any discrepancies between the two sets of figures and their subsequent implications for relevance and reliability.

To counter this, a different approach has been undertaken by Wilson, Plumley and Ramchandani, 2013) in an attempt to provide greater consistency. The study utilises only company accounts, owing to the fact that not all football clubs have parent or holding companies. Whilst the authors appreciate that there are still limitations to this method, it is also argued that the omission of parent and holding company accounts at least provides some like-for-like comparisons. The purpose of this pilot study was therefore to explore the differences between the two approaches and the practices that both approaches apply to obtain their respective final figures. The pilot study first focused on each of the areas in turn in relation to the financial variables that are considered to be most relevant to the model formation. The financial variables are all financial indicators of performance that are consistent with FRS 3 *Reporting Financial Performance*. They can be found in all income and expenditure statements and balance sheets which are two of the main components of an annual report. Furthermore, all of the indicators discussed in this chapter are evident in the five areas of financial performance that are most commonly analysed as explained in chapter 5 by Wilson (2011) among others.

Revenue

The revenue figures are simply the revenue figure taken from the income statements of the respective football clubs. Deloitte take this figure from the 'top' legal entity in respect to the ownership structure of the club and make adjustments where the information is available to them to exclude some non-football activities or capital transactions. The company accounts revenue figure is, more simply, the figure taken from the top of the income statement for the club.

Table 15: Analysis of turnover by data set plus key variances 2008

Revenue	2008	2008	2008	2007	2007	2007					
Club	Company Accounts £'000	Deloitte Data £'000	Variance £'000	Company Accounts £'000	Deloitte Data £'000	Variance £'000	Company Accounts Growth (Abs.) £'000	Deloitte Data Growth (Abs.) £'000	Company Accounts Growth (%)	Deloitte Data Growth (%)	Variance (Percentage Points)
Arsenal	183,301	209,294	-25,993	139,003	177,651	-38,648	44,298	31,643	32%	18%	14
Aston Villa	75,538	75,639	-101	52,674	37,196	15,478	22,864	38,443	43%	103%	-60
Birmingham	49,836	49,836	0	25,039	25,039	0	24,797	24,797	99%	99%	0
Blackburn	56,395	56,395	0	43,303	43,303	0	13,092	13,092	30%	30%	0
Bolton	51,013	59,072	-8,059	43,087	51,053	-7,966	7,926	8,019	18%	16%	3
Chelsea	190,082	213,648	-23,566	165,341	190,452	-25,111	24,741	23,196	15%	12%	3
Derby	48558	48,558	0	13,907	13,907	0	34,651	34,651	249%	249%	0
Everton	75,650	75,650	0	51,412	51,412	0	24,238	24,238	47%	47%	0
Fulham	53,655	53,670	-15	39,663	39,679	-16	13,992	13,991	35%	35%	0
Liverpool	159,052	164,222	-5,170	133,910	133,910	0	25,142	30,312	19%	23%	-4
Man City	82,295	82,295	0	56,925	56,925	0	25,370	25,370	45%	45%	0
Man United	180,267	257,116	-76,849	143,823	212,189	-68,366	36,444	44,927	25%	21%	4
Middlesbrough	47,838	47,952	-114	47,984	48,098	-114	-146	-146	0%	0%	0
Newcastle	98,827	100,866	-2,039	86,882	87,083	-201	11,945	13,783	14%	16%	-2
Portsmouth	70,476	71,556	-1,080	40,245	41,165	-920	30,231	30,391	75%	74%	1
Reading	51,575	58,023	-6,448	44,926	50,396	-5,470	6,649	7,627	15%	15%	0
Sunderland	63,477	63,597	-120	26,207	26,327	-120	37,270	37,270	142%	142%	1
Tottenham	102,880	114,788	-11,908	94,102	103,091	-8,989	8,778	11,697	9%	11%	-2
Wigan	42,845	43,455	-610	26,899	27,398	-499	15,946	16,057	59%	59%	1
Totals	***1,683,560***	***1,845,632***	***-162,072***	***1,275,332***	***1,416,274***	***-140,942***	***408,228***	***429,358***			

Table 15 analyses the changes in turnover between 2007 and 2008 and also highlights the variance between the company account figure and the Deloitte figure. The column of most relevance here is the overall variance in percentage points (column 12). This column compares the variances in the changes in revenue between the two sets of figures in percentage terms. These figures can be analysed against the principles of materiality in financial information outlined in chapter 2 (p.28, para.2). The percentage variance column in table 15 supports the conclusion that both sets of figures can be considered reliable, relevant and material based on the principles of financial accounting. This is due to the fact that for the majority of the clubs the percentage point variance between the two figures is actually zero. Subsequently, for the most part, both the company accounts and Deloitte data are reporting the same figures, evidenced by the low variance percentage figures in table 15. Furthermore, none of the figures (apart from the one recorded by Aston Villa) are of a high enough percentage that they can be considered 'materially' different in line with the example on p.28. The figure for Aston Villa[1] (-60%), can also be explained by the notes attached to the Deloitte analysis. Subsequently, it can be concluded that both the revenue figures reported in the company accounts and by Deloitte would be considered to be consistent with the principles of recognition and measurement in financial statements.

Operating Profit/ (Loss)

Deloitte define operating profit/ (loss) as operating profit excluding amortisation of player registrations, profit/ (loss) on player disposals, amortisation of goodwill on acquisition and certain exceptional items. For Companies Act purposes, amortisation of player registrations should be included in the same profit and loss account category as the remuneration of players. Typically, this is within costs of sales or administrative expenses. Hence, statutory financial statements should disclose an operating profit figure that is after amortisation of player registrations. However, Deloitte use operating profit/ (loss) before amortisation of player registrations, a sub-total commonly used in the analysis of the financial results of football clubs. This is in part due to way in which different clubs record and define amortisation in relation to their playing staff. The

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[1] Figures are included from Reform Acquisitions Limited, a company that was incorporated on 31 July 2006 for the acquisition of the Aston Villa plc. group. Reform Acquisitions Limited began trading on completion of the acquisition on 10 November 2006 and therefore the 2007 results represent a six and a half month period. (Source: Deloitte analysis).

company accounts figures states the same figure, where the information is available. Some clubs, in the company accounts, only state an operating profit/ (loss) figure with little or no reference to whether amortisation has been included or deducted from that figure. This provides implications for considering like-for-like comparisons between the information recorded in the company accounts. Subsequently, it would be more beneficial to use the Deloitte calculation for operating profit as it does not include amortisation at all meaning that the approach is more consistent across all clubs.

Table 16: Operating profit/(loss) variances 2008

Op. profit/(loss) absolute values and ratios 2008						
Club	Company Accounts (abs.) £'000	Deloitte Data (abs.) £'000	Variance £'000	Company Accounts Op. profit/(loss) ratio (%)	Deloitte Data Op. profit/(loss) ratio (%)	Variance %
Arsenal	43,432	48,473	-5,041	24%	23%	1%
Aston Villa	575	4,821	-4,246	1%	6%	-6%
Birmingham	13,713	12,829	884	28%	26%	2%
Blackburn	6,567	6,567	0	12%	12%	0%
Bolton	-14,008	-5,002	-9,006	-27%	-8%	-19%
Chelsea	-11,443	-30,878	19,435	-6%	-14%	8%
Derby	12,238	12,238	0	25%	25%	0%
Everton	-5,540	6,809	-12,349	-7%	9%	-16%
Fulham	-2,136	-1,979	-157	-4%	-4%	0%
Liverpool	30,190	28,350	1,840	19%	17%	2%
Man City	-1,598	-1,598	0	-2%	-2%	0%
Man United	593	71,758	-71,165	0%	28%	-28%
Middlesbrough	-13,094	-1,826	-11,268	-27%	-4%	-24%
Newcastle	-24,449	-11,692	-12,757	-25%	-12%	-13%
Portsmouth	-21,687	-6,323	-15,364	-31%	-9%	-22%
Reading	7,076	12,529	-5,453	14%	22%	-8%
Sunderland	-2,370	11,142	-13,512	-4%	18%	-21%
Tottenham	19,697	27,461	-7,764	19%	24%	-5%
Wigan	-16,529	-2,805	-13,724	-39%	-6%	-32%
Totals	***21,227***	***180,874***	***-159,647***			

Table 16 analyses the absolute operating profit/(loss) of the 19 clubs and each club's respective operating profit/(loss) ratio as well as the variance between the two ratios in the two datasets. Table 16 reveals much greater percentage variances than the revenue figures reported earlier. However, where the figures are the same, the indication is that the information provided in the accounts is more straightforward to apply, i.e. there is a figure outlined that excludes amortisation as per the Deloitte definition (Blackburn Rovers, Derby County, Fulham and Manchester City provide examples of where this occurred). Furthermore, as previously reported in the revenue figures, there are seven further instances where the variance is minimal meaning that, materially, the figures stated are essentially the same. This leaves eight instances where the figures show larger variance. It is envisaged that some of these differences occurred in respect of the ownership structure of the club. Manchester United and Newcastle United, for example, have holding or parent companies which Deloitte include in their analysis. Further differences are most likely attributed to the way in which financial information is presented in the company accounts. As previously stated, not all company accounts state a figure that is directly comparable to the methods employed by Deloitte (i.e. some company accounts do not offer a definition as to whether the operating profit/(loss) figure accounts for amortisation). This in turn has implications for comparability in financial information and the debate surrounding how financial information is reported given the current application of both HCA and FVA in financial statements (see section 2.2, p.19).

Pre-tax Profit/ (Loss)

The pre-tax profit/ (loss) figure appears to be more straightforward to report as it is categorically stated in the financial accounts of all companies. Put simply, it is the amount of profit, or loss, before any taxation charges are deducted. Table 17 reports the absolute values, ratio and variance between the two sets of figures for this measure.

Table 17: Pre-tax profit/ (loss) variances 2008

Pre Tax Profit/(Loss) absolute values and ratios 2008						
Club	Company Accounts (abs.) £'000	Deloitte Data (abs.) £'000	Variance £'000	Company Accounts Pre-tax profit/(loss) ratio (%)	Deloitte Data Pre-tax profit/(loss) ratio (%)	Variance %
Arsenal	48,340	36,668	11,672	26%	18%	9%
Aston Villa	-769	-7,569	6,800	-1%	-10%	9%
Birmingham	4,554	4,296	258	9%	9%	1%
Blackburn	3,030	3,030	0	5%	5%	0%
Bolton	-8,268	-8,017	-251	-16%	-14%	-3%
Chelsea	-70,937	-84,504	13,567	-37%	-40%	2%
Derby	1,758	1,758	0	4%	4%	0%
Everton	26	26	0	0%	0%	0%
Fulham	-7,543	1,590	-9,133	-14%	3%	-17%
Liverpool	10,199	-40,905	51,104	6%	-25%	31%
Man City	-29,657	-32,648	2,991	-36%	-40%	4%
Man United	23,515	-44,780	68,295	13%	-17%	30%
Middlesbrough	-8,348	-8,348	0	-17%	-17%	0%
Newcastle	-20,048	-34,073	14,025	-20%	-34%	13%
Portsmouth	-16,882	-16,882	0	-24%	-24%	0%
Reading	6,832	6,706	126	13%	12%	2%
Sunderland	-2,274	-4,894	2,620	-4%	-8%	4%
Tottenham	-478	2,987	-3,465	0%	3%	-3%
Wigan	-11,205	-11,205	0	-26%	-26%	0%
Totals	***-78,155***	***-236,764***	***158,609***			

Whilst table 17 indicates a significant variance in the absolute figures, the majority of percentage variances are again around the 0% mark indicating that, fundamentally, the same figures are being reported. Furthermore, some of the main variances in table 17 can be logically explained through further analysis. For example, it is widely reported that a high majority of Manchester United's business transactions are recorded in the holding company accounts and also in other accounts attributable to the Glazer family, the owners of the club. The other outliers in table 17, Fulham[2], Liverpool[3] and

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[2] Fulham - 2008 Pre-tax profit includes an exceptional credit of £9,528k due to the waiver of a loan owed to the former parent company of Fulham Football Leisure Limited. (Source: Deloitte Analysis).

[3] Liverpool - Kop Football (Holdings) Limited ("KFHL") was incorporated on 18 December 2006 and on 23 March 2007, Kop Football Limited, a wholly owned subsidiary of KFHL, acquired The Liverpool Football Club and Athletic Grounds plc. 2008 figures are therefore taken from the financial statements of KFHL for the year ended 30 July 2008. (Source: Deloitte Analysis).

Newcastle United4, can be explained by an exceptional item in Fulham's case and by holding accounts for Liverpool and Newcastle United. It must be noted that the issue surrounding holding company accounts does impact on comparability although Deloitte are clear in stating that the information they use is taken from the 'top' company in relation to the ownership structure of each club. Therefore, if all analysis were to be conducted using the data provided by Deloitte, then there would be a stronger argument that the data would conform to the principles of comparability, reliability and materiality.

Wages

The wage costs outlined for both data sets are the total staff emoluments as disclosed in the notes to the accounts. However, the company account data only accounts for the total figure for wages and salaries and excludes security and pension costs which Deloitte include in their analysis. There is no way to determine, from a club's financial statements, which costs relate to players and which are for other staff. The percentage figure for table 18 expresses wages as a percentage of turnover, the most commonly used measure of analysis in relation to wages costs.

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4 Newcastle United - The 2008 figures have been extracted from the financial statements of St James Holdings Limited, following its acquisition of Newcastle United Limited (formerly Newcastle United plc.) on 15 June 2007. Results for 2008 represent the period from 21 May 2007 to 30 June 2008. (Source: Deloitte Analysis).

Table 18: Wages and wages to turnover variances 2008

Wage costs and wages/turnover percentages 2008						
Club	Company Accounts Wages Costs (abs.) £'000	Deloitte Data Wages Costs (abs.) £'000	Variance (abs.) £'000	Company Accounts W/T ratio (%)	Deloitte Data W/T ratio (%)	Variance %
Arsenal	85,983	101,302	-15,319	47%	48%	-1%
Aston Villa	9,645	50,447	-40,802	13%	67%	-54%
Birmingham	23,899	26,624	-2,725	48%	53%	-5%
Blackburn	34,843	39,661	-4,818	62%	70%	-9%
Bolton	33,171	39,033	-5,862	65%	66%	-1%
Chelsea	144,007	172,096	-28,089	76%	81%	-5%
Derby	26,109	26,109	0	54%	54%	0%
Everton	39,275	44,480	-5,205	52%	59%	-7%
Fulham	35,193	39,344	-4,151	66%	73%	-8%
Liverpool	79,075	90,438	-11,363	50%	55%	-5%
Man City	47,483	54,222	-6,739	58%	66%	-8%
Man United	90,705	121,080	-30,375	50%	47%	3%
Middlesbrough	28,786	34,761	-5,975	60%	72%	-12%
Newcastle	62,327	79,329	-17,002	63%	79%	-16%
Portsmouth	48,336	54,680	-6,344	69%	76%	-8%
Reading	31,094	33,123	-2,029	60%	57%	3%
Sunderland	32,802	37,091	-4,289	52%	58%	-7%
Tottenham	45,632	52,921	-7,289	44%	46%	-2%
Wigan	34,244	38,351	-4,107	80%	88%	-8%
Totals	***932,609***	***1,135,092***	***-202,483***	***55%***	***62%***	

The variance in the figures in table 18 is more straightforward to explain. The company account data details the wages and salaries figure minus social security and pension costs. Deloitte include this figure in their analysis which will account for the majority of differences in table 18. The figure for Aston Villa is a major variance owing to the fact that the full disclosure of wage costs is not provided in the company accounts. It is envisaged that like-for-like comparisons will not be a problem for this particular measure as the company account figure can easily be adjusted to account for total staff costs by using the total staff cost figure in the accounts rather than the wages and salaries figure.

Net Debt

The comparison of debt is ultimately the most difficult one to apply in relation to the two data sets. Primarily, this is attributable to the fact that Deloitte use a net funds/ (debt) figure for their analysis which is taken from the notes to the cash flow statement (where shown) or is an aggregation of certain figures from the balance sheet. Furthermore, Deloitte adjust the figures from the cash flow statement in some instances to aid comparability. The calculation from the company accounts follows a more theoretical approach to measuring debt and uses the figure for the company's total liabilities. A debt figure calculated in this way expresses total debt as the sum of an organisation's current and non-current (long term) liabilities. This can then be measured against an organisation's total assets (both current and fixed) to provide a debt ratio. The reason for using liabilities solely from the balance sheet is that not all of the company accounts have a cash flow statement attached to their respective annual reports making like-for-like comparison in this instance increasingly difficult. There are no percentage figures presented in table 19 owing to the difficulty in conducting like-for-like comparisons with the high levels of variance associated with the recording of this variable between the company accounts and the Deloitte data.

Table 19: Net debt variance 2008

Net Debt absolute values 2008			
Club	Company Accounts £'000	Deloitte Data £'000	Variance £'000
Arsenal	280,139	318,073	-37,934
Aston Villa	86,786	72,261	14,525
Birmingham	50,905	-2,414	53,319
Blackburn	34,504	16,918	17,586
Bolton	111,799	53,542	58,257
Chelsea	617,032	710,562	-93,530
Derby	51,718	21,811	29,907
Everton	73,175	36,752	36,423
Fulham	204,619	192,823	11,796
Liverpool	227,402	299,838	-72,436
Man City	238,045	137,532	100,513
Man United	150,819	649,429	-498,610
Middlesbrough	134,806	93,842	40,964
Newcastle	188,574	245,053	-56,479
Portsmouth	137,044	50,106	86,938
Reading	59,149	42,313	16,836
Sunderland	110,672	71,231	39,441
Tottenham	128,022	29,702	98,320
Wigan	82,982	66,412	16,570
Totals	***2,968,192***	***3,105,786***	***-137,594***

The main reasons for the variances outlined in table 19 are attributed to the way in which the figures have been calculated. It is almost impossible, without access to data not in the public domain, to provide any comparisons between the two data sets as Deloitte include some figures extracted from cash flow statements whilst the company account figures only include information residing in the balance sheet. Furthermore, whilst using the company account data provides scope to measure debt ratios, it is difficult to apply this to the Deloitte method as there is no reference to the total current assets figures. Deloitte do not provide an example of what their total asset figure relates to meaning that debt ratio figures would be less meaningful when calculated from the Deloitte data. Both approaches are accepted ways to calculate the net debt of an organisation but again the inconsistencies in financial reporting and accounting principles as outlined by academics in chapter 2 and Owen (1994) make reconciliation between these two datasets for this measure increasingly difficult.

6.1.1 Comments on the Comparisons of the Company Accounts and Deloitte Data

Upon examination of the two data sets, it became evident that the inconsistencies surrounding accounting policies and practices outlined in chapter 2 were present here also, most notably in the way in which information is presented in line with the debate surrounding HCA and FVA in chapter 2 (section 2.2, p.19). Both sets of figures offered different results and interpretations at different points. As such, a decision had to be taken as to which dataset was going to be utilised for the study to proceed. It is clear, in relation to the figures above, that using the company or group accounts would provide a far more realistic picture of the overall entity, namely the whole football club and all its associated operations. Operationally, however, this presents a problem. Some clubs have their holding or group companies registered offshore meaning that access to the original documents proves problematic in practice. Furthermore, accounting practices in other countries will be different to those applied within the UK (see Nobes and Kvaal, 2010 for example) meaning that the reliability of such data and any comparisons made from it could be called into question. Subsequently, the decision was made to utilise the data provided by Deloitte. The main reasons behind this decision are that Deloitte liaise directly with the clubs, consider the legal entity that is registered as being at the 'top' of the ownership structure of each club and have adapted their calculations on a comparable basis over time to provide a more meaningful and consistent measure of a football club's financial performance. For example, Deloitte's 'Annual Review of Football Finance' is currently in its 23rd edition (correct at June 2014).

Once the collection of financial information had been finalised, the pilot study continued to consider the second domain of the model, namely the more objective measures of non-financial performance. It was reported in the preceding literature review that the on-pitch performance of professional football club was inextricably linked to its financial performance (section 4.10, p.114). Furthermore, many studies have also previously included non-financial factors in their analysis (see Guzman and Morrow, 2007; Haas, 2003; Romero Castro and Pineiro Chousa, 2006 among others). The sporting indicators used in these papers were entirely at the author's discretion and this thesis followed a similar approach in the first instance. The author and supervisory team developed the sporting indicators from previously utilised measures such as league points and number of wins to consider other factors that effect on-pitch performance such as the total number of games a club plays in a season relative to the maximum number possible were a club to be successful across many competitions. To the author's knowledge, some of these exploratory variables have never previously been used as a measure. The defining of the financial and sporting variables subsequently allowed for a working example of a model to be formulated before further analysis on the relationship between variables could be undertaken. The sporting variables originally proposed by the author and their relationship with each other is discussed below before a performance assessment model for the football club is presented.

6.1.2 Sporting Variables - Definitions and Relationships

Total Number of Games

The total number of games a club plays in a season is arguably one of the most important figures to consider when measuring success. Every team is guaranteed to play a certain number of games during a standard league season (38 in the EPL for example). However, measuring the total number of games played by an individual club provides information as to how successful that club has been over its competitors during any given season. For instance, a higher number of games played would indicate success in domestic cup competitions and participation in European cup competitions. For the purpose of this study, only the main domestic and European competitions applied including the EPL, FA Cup, League Cup, Champions League (formerly the European Cup) and the Europa League (formerly the UEFA Cup).

Total Wins (League)

The total win figure based on a club's league performance is calculated using a scoring system utilised by Szymanski and Kuypers (1999). This system awards clubs half a win if they draw a match, as gaining a draw is viewed as a positive result. Subsequently, the formula used to calculate total wins is as follows;

Total Wins (League) = Number of wins (League) + (Number of draws (League) x 0.5)

This figure can then be expressed as a ratio to examine the league win ratio based on the number of games the club plays in the league. This is a fixed number so all clubs will be benchmarked against the same figure.

Total Wins (Overall)

This calculation uses the same principles and formula as the variable outlined above but also factors in the total number of wins a club accumulates in domestic and European cup competitions. To the author's knowledge, no previous studies have considered this variable. For this figure to be realistic, draws are recorded as half a win in the FA Cup (where replays are a possibility) and European competitions (where there are group stages and two legged knock out ties). Games in the League Cup are recorded as simply wins and losses owing to the fact that there are no replays and ties are settled by extra time and penalties. Again, this figure could be computed to reflect a ratio, although this time the figure would be more subjective because it would have to be calculated against total number of games played, which will differ from club to club. For example, if a club played more games in any given season than another club then their chances of winning more matches (and obtaining a greater win ratio) would increase.

Fixed Home Games

Calculating the number of fixed home games that a club is guaranteed to play is an important measure to consider as it will have some effect on the club's revenue and, subsequently, profitability. Each club in the EPL is guaranteed at least 19 home games in a season from the league fixtures. A club may have some additional fixed home games if it qualifies for European competition. However, this is dependent on the nature of that European competition and owing to the format and structure of both the Champions League and the Europa League a club's total fixed home games can only ever be 19, 20 or 22. A total of 19 indicates a club that has not qualified for European competition, a total of 20 indicates a club that has a place in the qualifying round of a competition which is played over two legs home and away thus guaranteeing one extra home match. A total of 22 would indicate that a club has secured qualification to the group stages of the Champions League proper. This group stage consists of 6 games home and away meaning a guaranteed 3 home games for each club. Domestic cup competitions cannot be included in this calculation as the draw is random and a club could, in theory, be drawn to play away from home in both competitions.

Total Home Games

The total number of home games a club plays is used to determine the variance between fixed home games and total home games. Clubs that progress further, certainly in European competitions, play more games at home owing to the knockout stages being over two legs. Domestic competitions are more subjective as a club could progress through the rounds but still be drawn away from home each time. Furthermore, the semi-finals and final of the FA Cup are played at neutral venues. It is envisaged that clubs that have greater home game variance will ultimately have larger revenue figures to other clubs, with the greater benefits being realised by clubs that regularly compete in the Champions League and Europa League.

Fixed Total Games

The figure for fixed total games is measured in a similar way to fixed home games but also includes the guaranteed number of away matches a club will also play in any given season. It will also need to take into account the guaranteed number of domestic cup matches that a club will play in a season which was omitted from the fixed games figures. A club is guaranteed two games in domestic cup competition, one in the FA Cup and one in the League Cup. Therefore, the formula for fixed total games can be expressed as follows;

$$\text{Fixed Total Games} = (\text{Fixed Home Games} \times 2) + 2$$

This figure is then compared to the total number of games a club plays in a season to provide a total game variance figure. Clubs with a higher figure here will be the ones deemed to be more successful over the duration of a season.

Perfect Season

A further measure that reflects the relationship between total games played and a team's success is to factor in a variable titled the 'perfect season'. This would be a total number of games played should the club win every trophy possible and play in every round of the cup competitions. It must be noted that this measure is relatively subjective and no definitive definition can be offered. For example, some clubs play in the Champions League, some in the Europa League and some only have the domestic season to focus on so the definition of the 'perfect season' will vary accordingly from club to club dependent on their aspirations. However, from a theoretical viewpoint, there is a general measure that can be applied. The pinnacle, for all EPL clubs, would be participation in the Champions League. To subsequently go on to win this trophy, alongside the EPL title, FA Cup and League Cup would ultimately rank close to a perfect season. No team in England has ever achieved this quadruple, although Manchester United completed a treble of EPL, FA Cup and Champions League in 1998/1999. Therefore, the perfect season as defined for this pilot study is winning the EPL, FA Cup, League Cup and Champions League. However, there are further areas to consider when analysing this variable. The most successful clubs enter the Champions League at the group stage, and both domestic competitions at the third round stage. The League Cup involves two-legged semi-finals and the Champions League knockout stages are two-legged up until the final. These facts will be used to define the 'perfect season' variable meaning that to win all four trophies a club must play a total of 63 games (FA Cup replays are excluded from this figure as it is assumed that said club will win every round outright). The total of 63 is broken down as follows; 38 games in the league, 13 games in the Champions League (group stage and knockout), 6 games in the FA Cup and 6 games in the League Cup. It must also be noted that the 'perfect season' variable will be used in relation to total games played and does not compute total trophies won. For example a club could reach all three cup finals and lose, yet that club will still have played a total of 63 games.

This 'perfect season' figure is then compared to the total number of games that a club plays in any given season to ascertain how close each club was, in relation to total number of games, to having the 'perfect season'. The more successful a club is the closer this ratio will be to 1. The figure could have been discussed as an absolute (e.g. -10) indicating how many games a club was from achieving the 'perfect season' but the decision to use a ratio reflects similar measures used when considering win ratios.

Attendance Spread and Revenue per Average Spectator

These two variables are also included in the analysis by Deloitte in their 'Annual Review of Football Finance' publications. The attendance spread figure is the difference between highest and lowest league match attendances and can be expressed as both a percentage and an absolute figure. The percentage figure would represent the percentage of the highest attendance. Deloitte offer a suggestion that a low percentage score might indicate capacity constraints and robust match day revenue streams whereas a high percentage might indicate a more fragile fan base and more dependence on the quality of the visiting team (Deloitte, 2012). For example, clubs such as Arsenal and

Manchester United consistently sell all of their seats for home games. As such, their attendance spread figure is low indicating little fluctuation in attendances between matches. However, in recent years, at other clubs such as Wigan Athletic and Bolton Wanderers attendance spread figures have been considerably higher representing more fluctuation between match attendances. The figure for revenue per average spectator is derived from calculating a club's revenue less Premier League TV revenues and UEFA central TV distributions divided by the average league attendance. Admittedly, this approach has its flaws as it is not possible to eliminate accurately all European revenues and other TV income. Nor is it possible to extract commercial revenues from this figure as these arrangements can vary from club to club. Nevertheless, this figure does represent a 'broad measure' of a club's ability to generate revenue from its fan base.

Television Revenue

Television revenue incorporates the total TV revenue figure earned by clubs from both the EPL and from UEFA central TV distributions. This gives an overall 'broad' measure of the amount of revenue a club earns from TV payments. This figure could also be reflected as a percentage of revenue to highlight a club's dependence on television income. Television revenue was firstly included within the financial variables for the pilot study.

6.1.3 The Exploratory Performance Assessment Model (ExPAM)

Based on the discussion outlined above in relation to both financial and sporting variables, an experimental performance assessment model for the football club (hereafter referred to as the ExPAM) was derived. The ExPAM was based on an adaptation of the FOrNeX model which has been previously discussed in the literature review (see p.58). The ExPAM utilised elements of the mathematical procedures applied in the FOrNeX model, but did not replicate any of the variables used or the sub-domains that originally featured in that model (see Andrikopolous and Kaimenakis, 2009 for a more detailed discussion on this). A detailed summary of the ExPAM and its functions is presented in figure 6. At this stage of the pilot study, all factors were assigned equal weight. These weighting factors changed as the study progressed. The decision to use equal weightings at this point was due to the findings of the literature review that, normally, authors choose their own weighting factors (see Romero Castro and Pineiro Chousa, 2006). At this stage the study wished to remain objective with regards to weighting factors and their subsequent effect on the proposed model. A similar conclusion was reached when contemplating the number of variables to use in the ExPAM. The decision was taken to use the variables for both financial and sporting performance that have already been discussed as part of this chapter. This led to a logical progression between the variables discussed and the variables that were included in the ExPAM. Overall, at this stage, 9 financial variables and 9 sporting variables were selected.

Figure 6 - A Holistic ExPAM for the Football Club

Dimension	**Sub domain**				**Dimension**		**Overall Score (OPS)**
	Indicator	*League rank*	*Weight*	*Score*	*Score*	*Weight*	
Financial	Revenue	2	0.111	0.222	3.552	0.50	4.218
	Operating Profit/(Loss) before player trading	4	0.111	0.444			
	Pre-tax profit/(loss)	3	0.111	0.333			
	Net Assets/(Liabilities)	8	0.111	0.888			
	Cash/(bank loans and overdrafts)	4	0.111	0.444			
	Other loans and leases	1	0.111	0.111			
	Net funds/(debt)	3	0.111	0.333			
	Wages/Turnover	4	0.111	0.444			
	TV Revenue	3	0.111	0.333			
Sporting	League Points	5	0.111	0.555	4.884	0.50	
	Total Home Games	2	0.111	0.222			
	Total Home Game Variance	1	0.111	0.111			
	Total Games	4	0.111	0.444			
	Total Game Variance	6	0.111	0.666			
	Total Win Ratio	8	0.111	0.888			
	Perfect Season	11	0.111	1.221			
	Attendance Spread	4	0.111	0.444			
	Revenue per Average Spectator	3	0.111	0.333			

The ExPAM included two *dimensions*, financial and sporting and separate *sub-domains* which include the individual indicators that make up each *dimension.* In addition to this, the model employed a weighted average methodology. The *dimension* scores were then combined with the weighting factors to calculate an overall performance assessment score (OPS) for the football club. For the two *dimensions* of performance (financial and sporting) a weight is assigned which all sum to 1. The overall performance assessment of the football club is the weighted average of the performance in each of these *dimensions.* Within these two areas of performance there are a number of *sub domain* factors which are also weighted and sum up to 1 so each club has a performance score for each *sub domain* (using the *league rank)* which is then used to calculate the Overall

Performance Score (OPS) for each club. The league rank is derived from how well a club is performing in relation to other clubs in the league for all factors within the model. The league rank will range from 1 (best performance) to *n* categorised by how many teams compete in the league. For the EPL, for example, this would be 20 teams. Clubs are then ranked accordingly in relation to each of the performance indicators. For example, a team with the best revenue figure for that year will score 1; the team with the second best turnover figure will score 2 and so on. Revenue has a weight of 0.111 which is multiplied by the league rank of 2 to give an indicator score of 0.222. The sum of all sub domain scores for finance gives a dimension score of 3.552. Similarly, the sum of all sporting sub domain scores gives a dimension score of 4.884. These two dimension scores are then multiplied by their individual dimension weight to produce an overall performance assessment score of 4.218. A lower OPS is more desirable owing to the fact that clubs are ranked against each other (i.e. the perfect score for each indicator would be 1).

6.1.4 Results of the Pilot Study

The results of the pilot study using the ExPAM are now presented firstly focusing on financial and sporting performance individually before the overall performance is analysed. Owing to the fact that all weights are assigned equally, this is the best method for comparison as it provides evidence of all areas of performance which ultimately sum to give a performance assessment score.

6.1.4.1 Financial Performance

Table 20 - Financial Performance 2008

Rank	Club	Financial Score
1	Tottenham Hotspur	5
2	Birmingham City	6.56
3	Arsenal	7.11
4	Blackburn Rovers	7.67
5	Everton	7.78
=6	Derby County	8.67
=6	Reading	8.67
8	Manchester United	8.89
9	Aston Villa	9.33
10	Sunderland	9.44
11	Manchester City	10.44
12	Liverpool	10.78
13	Bolton Wanderers	11.44
14	Portsmouth	11.56
15	Newcastle United	12.89
16	Middlesbrough	13
17	Chelsea	13.22
18	Fulham	13.44
19	Wigan Athletic	14.11

Table 20 outlines the financial sub-domain scores for the pilot year (2008). One might expect to see Tottenham and Arsenal rank highly in this table as these clubs have previously been cited as a model of good financial management during the last decade (see Wilson, Plumley and Ramchandani, 2013 for example). Perhaps more surprising is the placing of Birmingham City, Derby County and Reading in the top 7 of table 20. However, this can largely be explained by the fact that these three clubs had been promoted to EPL in 2007, meaning that their financial performance would have been improved by an increase in revenue. Indeed, promotion to the EPL is currently estimated to be worth around £90m to a club owing to increases in television revenue and parachute payments. At the bottom of the table, Chelsea's adverse financial situation in 2008 is highlighted. Despite a relatively successful period on the pitch since the takeover by Roman Abramovich in 2003, the club recorded high levels of debt and liabilities meaning that their financial performance was considerably worse than a number of other clubs. The pilot study data appears to indicate that Chelsea are performing poorly financially although it would be wrong to make general assumptions at this stage when only one year's worth of data was considered. To counter this, it is envisaged that a longitudinal study would be beneficial to track changes among clubs within the league over a longer period of time. This would also add further robustness to the analysis and conclusions.

6.1.4.2 Sporting Performance

Table 21 - Sporting Performance 2008

Rank	Club	Sporting Score
1	Chelsea	2
2	Liverpool	2.56
3	Arsenal	2.67
4	Manchester United	3.44
5	Tottenham Hotspur	4.78
6	Everton	7
7	Portsmouth	8
8	Bolton Wanderers	9
9	Middlesbrough	9.78
10	Manchester City	9.89
11	Blackburn Rovers	10.11
12	Newcastle United	10.89
13	Reading	12.76
14	Aston Villa	12.89
15	Fulham	13
16	Derby County	13.33
17	Wigan Athletic	15.33
18	Birmingham City	15.89
19	Sunderland	17.22

Table 21 provides a reasonable indication of how successful each club was on the pitch during the course of the 2007/2008 season. Chelsea, at the top of the table, returned a near perfect score of 2 (the perfect score would be 1 for any domain or sub-domain owing to the methodology of the ExPAM). Chelsea's score of 2 was achieved by the club being relatively successful in all competitions. Chelsea finished second in the league, and reached the finals of both the League Cup and the Champions League. This meant that the club were only 2 games short of achieving a perfect season and their home game variance and total game variance, alongside their total win ratio was one of the highest in the league. Furthermore, the club recorded the highest revenue per average spectator figure with an estimated £3,000 being spent by the average Chelsea fan in 2008.

Contrastingly, the club at the bottom of the table, Sunderland, further justify the merits of some of the variables used in the ExPAM. In 2007/2008 Sunderland exited both domestic cup competitions (FA Cup and League Cup) after just one game meaning that their scores for home game variance, total game variance, total win ratio and perfect season score were considerably worse compared with other clubs. Due to the fact that there are 19 clubs in the study, the worst score a team could achieve for any domain or sub-domain would be 19 (because the rank score is used to calculate performance). Sunderland's score of 17.22 for sporting performance is close to the maximum negative score. Consequently, in relation to the variables used, table 21 provides a reasonable measure of sporting success in any given season as Sunderland also finished 15th out of 20 in the league as well for the pilot study season (2007/2008) gaining only 11 wins (28.9% of total possible wins) and 39 points (34.2% of total points possible). All of these variables had an impact on the club achieving close to a maximum negative score in the ExPAM.

6.1.4.3 Overall Performance

Table 22 - Overall Performance - 2008

Rank	Club	Overall Performance Score (OPS)
=1	Arsenal	4.89
=1	Tottenham Hotspur	4.89
3	Manchester United	6.16
4	Liverpool	6.67
5	Everton	7.39
6	Chelsea	7.61
7	Blackburn Rovers	8.89
8	Portsmouth	9.78
9	Manchester City	10.16
10	Bolton Wanderers	10.22
11	Reading	10.72
12	Derby County	11
13	Aston Villa	11.11
14	Birmingham City	11.22
15	Middlesbrough	11.39
16	Newcastle United	11.89
17	Fulham	13.22
18	Sunderland	13.33
19	Wigan Athletic	14.72

Table 22 outlines the OPS for the year 2008. The two North London clubs, Tottenham Hotspur and Arsenal rank joint first overall owing to good performance in both sub-domain scores. The two Merseyside clubs also feature in the top 5, although Everton appear to be the more balanced, having finished 5th and 6th in both sub-domains. Liverpool's overall score is heavily influenced by their sporting performance in a season where the club reached the semi-finals of the UEFA Champions League. Similarly, Manchester United's rank of 3^{rd} is attributable to an exceptional sporting performance score.

6.2 Model Improvements

After the completion of the pilot study utilising the neutral ExPAM, it was decided by the author and supervisory team that further alterations to the model were needed for the study to progress. This decision was made in an attempt to see if the right variables were being used and whether changing the weighting factors would affect the OPS. It is also good practice to follow in light of Field's (2009) test-retest argument that states that tests should be continually conducted to ensure reliability and validity.

However, owing to the number of variables used and the fact that the sum of these variables must equal 1 to comply with the model, a conclusion was reached that, in actual fact, altering the model manually and applying different weighting factors actually changed very little in terms of the overall results. The OPS of one or two clubs altered slightly but not to the extent where it influenced the overall ranking table sufficiently. Subsequently, it was decided that a more statistical approach was required to attempt to define which factors were most important within the model. The statistical analysis method chosen was factor analysis. An introduction to factor analysis is outlined below followed by the results of the factor analysis test run on the neutral model.

6.3 Factor Analysis

Factor analysis is defined as an umbrella term for a set of statistical procedures that examines the correlations between variables in large sets of data to see if a small set of underlying variables or factors can explain the variation in the original set of variables (Hinton, Brownlow, Cozens and McMurray, 2004). Subsequently, factor analysis can be viewed as a way of summarising or reducing data by examining the associations between variables, based on the correlations between them, in an attempt to highlight underlying factors (Hinton et al., 2004). Principally, there are two different types of factor analysis. These are *confirmatory factor analysis*, where the researcher takes factors from other research theories and attempts to see if these factors underlie their dataset also, and *exploratory factor analysis*, where the researcher has no prior beliefs about which, or how many, underlying factors can be found to explain the data. Both of these procedures can be easily computed in the statistical software package SPSS. Furthermore, the most common method of performing a factor analysis is *principal components analysis*, which analyses the total variance and attempts to explain the maximum amount of variance by the minimum number of underlying factors (Hinton et al., 2004). It is this method that was utilised to examine the proposed ExPAM. Ultimately, the decision that the researcher must make is 'how many factors are important?' There are three sources of information that can be used to aide this decision;

- The researcher could analyse the variance explained by each factor. The output helpfully lists the factors in order of how much variance each one can explain. It is common to choose a cut-off point (usually 5 per cent of the variance) and say that if a factor cannot explain as much as this it is not worth including as an important underlying factor.
- The factor analysis procedure calculates an *eigenvalue* for each factor. An eigenvalue of 1 means that the factor can explain as much variability in the data as a single original variable. Therefore, the most commonly used rule for deciding if a factor is important is to only take factors with an eigenvalue of 1 or greater.
- A third approach is to examine the *scree plot* of the factors and eigenvalues. The first factor is likely to have a large eigenvalue and each new factor's eigenvalue is much smaller than the last. However, there comes a point when the eigenvalues of the factors tend to become quite similar and the difference in eigenvalues between factors gets very small. The scree plot charts this effect and highlights in a graphical form the point at which the eigenvalues stop changing materially.

  Source: (Hinton et al., 2004)

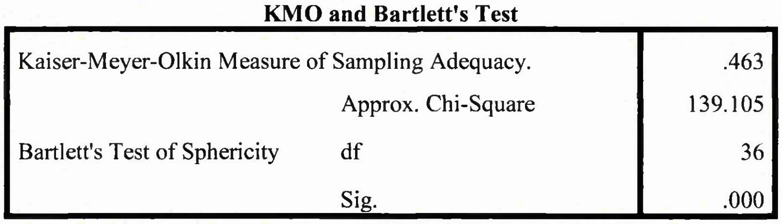
In factor analysis, a rotation procedure is commonly applied, which maximises the correlations of items within a factor. Owing to the nature of the ExPAM, and the fact that the analysis will focus on exploratory factor analysis, a varimax rotation procedure was applied. This method rotates the factors in such a way that when the final factors are produced they are not correlated (i.e. orthogonal) with each other. This method may not always offer the best factor definition but is one of the simplest to interpret (Hinton et al., 2004). Rotating the factors provides a clearer picture of which variables contribute to (correlate) or 'load' onto each factor. As a general rule of thumb it is often taken that a variable makes a significant contribution to a factor if the loading is 0.3 or greater (Hinton et al., 2004). However, for such a procedure to be applied, it is recommended that the sample size is a minimum of 30 cases. In relation to the pilot study the sample size was small (19 cases) so an extra cautionary loading factor of 0.4

was applied so as not to distort the analysis. This decision was taken based on the sample size being slightly smaller than 30. The literature states that a loading factor of 0.3 or greater is sufficient which meant that applying a factor of 0.4 to this dataset would suffice in response to dealing with a smaller sample size. A further two tests are also required before factor analysis can be performed. These are the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO test) and the Bartlett test of sphericity. The KMO test is a helpful measure of whether the data is suitable for factor analysis (a KMO test score of above 0.5 is deemed appropriate for factor analysis to then take place). The Bartlett test of sphericity also needs to be significant ($p< 0.05$) as this indicates that there are relationships to investigate. The following sections outline the procedures followed and the results obtained from conducting exploratory factor analysis on the neutral ExPAM. The variables have been analysed in relation to their respective sub-domains (i.e. factor analysis has been performed for both the financial and sporting variables using 9 variables each time).

6.3.1 Factor Analysis Results and Discussion

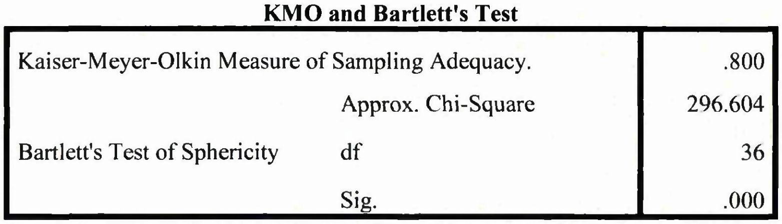
Before running the factor analysis is deemed acceptable, the KMO and Bartlett test must be considered. The results of these tests are outlined in figure 7 below.

Figure 7 - KMO and Bartlett tests for financial and sporting variables



KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.463
Bartlett's Test of Sphericity	Approx. Chi-Square	139.105
	df	36
	Sig.	.000



KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.800
Bartlett's Test of Sphericity	Approx. Chi-Square	296.604
	df	36
	Sig.	.000

Whilst both tests are deemed significant, in Bartlett's test of sphericity ($p<0.005$) there is a slight disparity in the KMO test result. For the sporting variables a score of 0.8 indicates that the variables in the sample are adequate to correlate, whereas the KMO test score for the financial factors falls below the recommended level of 0.5. Furthermore, the rotated component matrix for the sporting variables only extracts one factor as a principal component. This suggests that factor analysis may not be the most adequate method to follow to determine which variables are important for this model. However, SPSS also calculates a correlation matrix prior to factor analysis taking place which provides an indication of the relationships between variables. The correlation matrix provides an opportunity to eliminate variables from the investigation where certain variables correlate highly. A general rule of thumb is to eliminate variables that return an *r* score of greater than 0.7. The correlation matrixes for both financial and sporting variables are outlined in figures 8 and 9.

Figure 8 - Correlation Matrix (Financial)

		Revenue	Operating Profit	Pre-Tax Profit	Net Assets/(Liabilities)	Cash/(bank loans and overdrafts)	Other Loans	Net Funds/(Debt)	Wages/Turnover	TV Revenue
Correlation	Revenue	1.000	.239	-.389	.219	-.009	-.704	-.602	.295	.807
	Operating Profit	.239	1.000	.432	.574	-.270	.089	.114	.925	.100
	Pre-Tax Profit	-.389	.432	1.000	.453	.240	.411	.623	.433	-.504
	Net Assets/(Liabilities)	.219	.574	.453	1.000	-.111	.082	.202	.632	.054
	Cash/(bank loans and overdrafts)	-.009	-.270	.240	-.111	1.000	-.077	.346	-.149	-.209
	Other Loans	-.704	.089	.411	.082	-.077	1.000	.830	.154	-.588
	Net Funds/(Debt)	-.602	.114	.623	.202	.346	.830	1.000	.188	-.596
	Wages/Turnover	.295	.925	.433	.632	-.149	.154	.188	1.000	.002
	TV Revenue	.807	.100	-.504	.054	-.209	-.588	-.596	.002	1.000
Sig. (1-tailed)	Revenue		.163	.050	.184	.486	.000	.003	.110	.000
	Operating Profit	.163		.033	.005	.132	.358	.321	.000	.342
	Pre-Tax Profit	.050	.033		.026	.161	.040	.002	.032	.014
	Net Assets/(Liabilities)	.184	.005	.026		.326	.369	.204	.002	.412
	Cash/(bank loans and overdrafts)	.486	.132	.161	.326		.377	.074	.271	.196
	Other Loans	.000	.358	.040	.369	.377		.000	.264	.004
	Net Funds/(Debt)	.003	.321	.002	.204	.074	.000		.221	.004
	Wages/Turnover	.110	.000	.032	.002	.271	.264	.221		.497
	TV Revenue	.000	.342	.014	.412	.196	.004	.004	.497	

a. Determinant = 5.440E-005

Figure 9 - Correlation Matrix (Sporting)

		League Points	Total Home Games	Total Home Game Variance	Total Games	Total Game Variance	Total Win Ratio	Perfect Season	Attendance Spread	Revenue per average spectator
Correlation	League Points	1.000	.702	.670	.698	.666	.969	.725	.314	.610
	Total Home Games	.702	1.000	.987	.957	.938	.773	.962	.556	.710
	Total Home Game Variance	.670	.987	1.000	.958	.955	.745	.950	.580	.706
	Total Games	.698	.957	.958	1.000	.986	.797	.993	.643	.814
	Total Game Variance	.666	.938	.955	.986	1.000	.764	.970	.665	.811
	Total Win Ratio	.969	.773	.745	.797	.764	1.000	.813	.359	.672
	Perfect Season	.725	.962	.950	.993	.970	.813	1.000	.628	.801
	Attendance Spread	.314	.556	.580	.643	.665	.359	.628	1.000	.784
	Revenue per average spectator	.610	.710	.706	.814	.811	.672	.801	.784	1.000
Sig. (1-tailed)	League Points		.001	.001	.001	.001	.000	.000	.102	.004
	Total Home Games	.001		.000	.000	.000	.000	.000	.008	.000
	Total Home Game Variance	.001	.000		.000	.000	.000	.000	.006	.001
	Total Games	.001	.000	.000		.000	.000	.000	.002	.000
	Total Game Variance	.001	.000	.000	.000		.000	.000	.001	.000
	Total Win Ratio	.000	.000	.000	.000	.000		.000	.072	.001
	Perfect Season	.000	.000	.000	.000	.000	.000		.003	.000
	Attendance Spread	.102	.008	.006	.002	.001	.072	.003		.000
	Revenue per average spectator	.004	.000	.001	.000	.000	.001	.000	.000	

a. Determinant = 1.647E-010

6.3.2 Highly Correlated Variables

This section considers the highly correlated variables outlined in figures 8 and 9 and discusses the implications of the results starting firstly with the financial variables before moving on the sporting variables.

6.3.2.1 Financial

The results shaded in grey in figure 8 highlight which variables returned a high correlation score (above 0.7) and could possibly be omitted from the analysis. Moving across each of the correlation columns offers suggestions on which variables should be included over others. For example, 'revenue' was highly correlated with 'other loans' and 'television revenue'. The correlation with 'television revenue' was to be expected as the television revenue figure will provide a substantial proportion of the clubs' overall revenue. The correlation with 'other loans' was a little more surprising although this also correlated highly with 'net funds/(debt)' which was again understandable as this figure is determined by summing together 'cash/(bank loans and overdrafts)' and 'other loans'. The correlation matrix suggested that should 'revenue' be chosen then there was little point including 'other loans' and 'television revenue'. Likewise, if 'net funds/(debt)' was to be selected then 'other loans' should not be included. There were two further variables in the financial section that were highly correlated. These were 'operating profit' and 'wages/turnover' ($r= 0.925$) which also provoked a discussion as to which one should be removed from the analysis. The decision as to which variables were chosen is discussed in the following section (6.4).

6.3.2.2 Sporting

The sporting correlation matrix identified that the majority of variables chosen in the ExPAM were highly correlated (figures shaded grey in figure 9). 'League points' appeared to be an obvious variable for inclusion based on figure 9. Likewise, 'attendance spread' appeared to be an obvious inclusion as it only correlated highly with 'revenue per average spectator'. The other seven variables were much more inconclusive. They all correlated highly with other variables in the matrix meaning that a decision needed to be made as to which ones were actually best to include. If the assumption was to be made that 'league points' was to be included then the variables for 'total home game variance', 'total games' and 'total game variance' could justifiably be included. The decision could also be taken to omit 'total games' and focus solely on the variances between league form and discretionary performance. With reference to figure 9, it was likely that 'perfect season' would also be dropped from the analysis as it correlated highly with every other variable.

6.4 The Model Restated - The Performance Assessment Model (PAM)

Having performed both factor and correlation analysis on the neutral ExPAM the decision was taken to omit ten variables based on the discussion outlined above. The restated model is subsequently referred to as the Performance Assessment Model (PAM), excluding the experimental tag from the model after factor and correlation analysis. The reasons behind the omission of certain factors is outlined below before the model is restated and retested using both equal and 'justified' weighting factors. This will contribute a further test of reasonableness before the model is expanded to analyse a larger dataset over a longitudinal time period. Firstly, the reasons behind the omission of certain factors are explained.

The financial variables were reduced from nine to five. This is due to the correlation analysis outlined in figure 8. 'Revenue' was retained for inclusion over 'TV revenue'. This was a logical choice owing to the fact that the TV revenue figure will be stated within the total revenue figure as TV revenue is only one proportion of total revenue. 'Other loans' also correlated highly with 'revenue' and 'net funds/ (debt)'. However, 'net funds/ (debt)' is a product of both 'other loans' and 'cash/ (bank loans and overdrafts)'. Subsequently, the decision was made to just include 'net funds/ (debt)' as the overall variable to measure. A further decision that had to be made was the choice between 'operating profit' and 'wages/turnover' as both correlated highly with one another. However, the relationship was a positive one which is not something that one might expect when considering these two variables. For example, one might expect a low wages/turnover ratio to lead to a higher operating profit meaning that the relationship would be a negative one. This could be explained by the way in which Deloitte state the operating profit figure. This figure does not include amortisation of player registrations or the profit/ (loss) on player disposals. As such, the measure of operating profit that Deloitte use is not a generalizable measure that would be applicable across all financial analysis techniques. It has already been regulated and altered to reflect the analysis that Deloitte themselves produce. Therefore, it does not offer a reliable working practice for defining operating profit. Subsequently, 'wages/turnover' was chosen for inclusion instead of 'operating profit'.

The sporting variables proved more problematic to reduce owing to the fact that many variables correlated highly with each other. 'League points' was included in the final model as this is the most important measure of a football club's sporting performance. This variable correlated highly with 'total home games', 'total win ratio' and 'perfect season' (see figure 9) so a further decision had to be made surrounding the other variables which make up sporting performance. Firstly, the decision was made to focus on 'game variance' rather than 'total games' because the game variance figure will link directly to the number of games played. Furthermore, it was decided that 'total home game variance' was a less important factor and was in actual fact already factored into 'total game variance' so if it were to be included it would effectively be counted twice. The rationale for focusing on total home games and variance in the first instance was that it would have a direct effect on revenue. However, through further research this does not appear to be the case. For example, in domestic cup competitions, the income from gate receipts is split almost equally between the home and away club (45% each and a further 10% to the association) meaning that, in monetary terms at least, no team benefits from being drawn at home. It was therefore envisaged that using 'total game variance' alone was a justifiable decision.

The formula for calculating total game variance was also altered slightly to aid consistency. In the neutral ExPAM, the fixed amount of games that a club could play varied depending on whether or not that club had qualified for Europe or not. However, to aid consistency the fixed number of games a club can play has been altered to 40 games to reflect only the league games and cup games that a club is guaranteed to play in any given season. This will have a subsequent effect on the total game variance figure. In addition, the inclusion of 'total game variance' led to the omission of 'total win ratio' and 'perfect season' as these variables also correlated highly with 'total game variance'. The final decision made was to select 'attendance spread' over 'revenue per average spectator'. The reason for this is that of the two variables the attendance spread figure is much more reliable and objective as opposed to revenue per average spectator which Deloitte states represents a 'broad measure' of a club's ability to generate revenue from its fan base. Subsequently the sporting variables were reduced from nine to three after correlation analysis was completed.

There has been some conflict and critique in previous studies as to which variables, and how many, are appropriate when focusing on on-field performance (see Guzman and Morrow, 2007 and Haas, 2003). Often, in the case of Guzman and Morrow (2007), only a small number of variables are used. Whilst this may attract criticism, it is clear from the methodology of this study that a small number of variables can be appropriate when the relationships between them are considered. The methodology in this study narrowed the sporting variables down from nine to three using recognised statistical analysis techniques. Furthermore, the results of this study have been obtained from a longitudinal dataset meaning that the study goes further than previous research in this area. Guzman and Morrow (2007) for example analyse a six season period from 1997/98 - 2002/03.

6.5 Weighting Factors

Once the variables had been reduced they were weighted according to their respective importance to the model. In the neutral ExPAM, where there were nine variables in each domain, all variables were given an equal weighting of 0.11. After correlation analysis, the number of variables was reduced to eight; five financial and three sporting. Each of these two sets of variables must also sum to 1 so it was important that there was a rational justification offered for the weighting of variables that also did not dilute the PAM. For example, the closer each weighting factor gets to zero means that the rationale for including it becomes less justifiable. For the restated PAM and the pilot study, two weighting methods were applied and the results compared against each other, and the preceding neutral ExPAM, before a final decision was made.

The first weighting method for the restated PAM followed the same principle as the neutral ExPAM and all weights were equal. For the second method a simple measure of scale was applied to assist with the weighting factors attached to the variables. The majority of variables in the PAM can be categorised as economy measures (i.e. there is one absolute figure that is being measured). However, with reference to the wages to turnover variable, this incorporates two measures to calculate the ratio and can therefore be defined as a measure of efficiency. As such, the weighting factor applied to this variable was automatically doubled to reflect that it is made up of two components. This also reflects the importance of UEFA FFP and the current regulations in place in European football as the wages to turnover ratio is a key component of FFP. The other variables, all of which are economy measures, were then assigned an equal weighting within each sub-domain so that the PAM still summed to 1 each time. For the sporting variables, where three have been chosen, the weighting factors were amended slightly to reflect their respective importance. The decision of how to weight the sub-domains was calculated with regards to the number of variables in the model and their respective percentage values within the sub-domains. There were eight variables in total, five of which are financial and three of which were sporting meaning respective weighting factors of 62.5% and 37.5%. The two restated PAMs are outlined in figures 10 and 11 respectively.

Figure 10 - The PAM restated (equal weights)

Dimension	**Sub domain**				**Dimension**		**OPS**
	Indicator	*League rank*	*Weight*	*Score*	*Score*	*Weight*	
Financial	Revenue	2	0.20	0.40	4.20	0.50	3.43
	Pre-tax profit/(loss)	4	0.20	0.80			
	Net assets/(liabilities)	3	0.20	0.60			
	Net funds/(debt)	8	0.20	1.60			
	Wages/Turnover	4	0.20	0.80			
Sporting	League Points	5	0.333	1.665	2.66	0.50	
	Total Game Variance	2	0.333	0.666			
	Attendance Spread	1	0.333	0.333			

Figure 11 - The PAM restated (justified weights)

Dimension	**Sub domain**				**Dimension**		**OPS**
	Indicator	*League rank*	*Weight*	*Score*	*Score*	*Weight*	
Financial	Revenue	2	0.15	0.30	4.15	0.625	3.70
	Pre-tax profit/(loss)	4	0.15	0.60			
	Net assets/(liabilities)	3	0.15	0.45			
	Net funds/(debt)	8	0.15	1.20			
	Wages/Turnover	4	0.40	1.60			
Sporting	League Points	5	0.40	2.00	2.90	0.375	
	Total Game Variance	2	0.30	0.60			
	Attendance Spread	1	0.30	0.30			

6.6 Re-analysis using the restated PAM

Following the changes to the model the pilot study data was re-calculated for the season 2007/2008 as previously reported. This re-analysis was conducted as a further test of reasonableness to ascertain whether or not the results taken from the PAM can be explained by what happened on and off the pitch during that season. The neutral ExPAM and both restated PAMs are considered below in table 23 to chart the differences between all three sets of results and to further consider the best rationale for applying weighting factors.

Table 23 - OPS and gap analysis for the three pilot study models in 2008

Neutral ExPAM					Restated PAM (Equal Weights)					Restated PAM (Justified Weights)				
Club	OPS	FR	SR	Gap	Club	OPS	FR	SR	Gap	Club	OPS	FR	SR	Gap
Arsenal	4.89	3	3	0	Arsenal	3.83	2	1	1	Tottenham Hotspur	3.81	1	5	4
Tottenham Hotspur	4.89	1	5	4	Tottenham Hotspur	4.4	1	5	4	Arsenal	3.81	2	1	1
Manchester United	6.16	8	4	4	Manchester United	5.9	9	2	7	Manchester United	5.56	4	2	2
Liverpool	6.67	12	2	10	Liverpool	7.67	13	4	9	Liverpool	7.81	12	4	8
Everton	7.39	5	6	1	Everton	8.03	8	6	2	Everton	8.22	8	6	2
Chelsea	7.61	17	1	18	Chelsea	9.2	19	2	17	Reading	9.16	6	12	6
Blackburn Rovers	8.89	4	11	7	Blackburn Rovers	9.5	5	9	4	Birmingham City	9.25	3	17	14
Portsmouth	9.78	14	7	7	Reading	9.8	4	12	8	Derby County	9.53	5	15	10
Manchester City	10.16	11	10	1	Portsmouth	10.23	14	7	7	Blackburn Rovers	9.91	9	9	0
Bolton Wanderers	10.22	13	8	5	Aston Villa	10.57	9	13	4	Manchester City	10.47	11	9	2
Reading	10.72	6	13	7	Manchester City	10.6	11	9	2	Aston Villa	10.63	10	13	3
Derby County	11	6	16	10	Derby County	10.67	5	15	10	Bolton Wanderers	11.06	13	11	2
Aston Villa	11.11	9	14	5	Birmingham City	10.7	3	17	14	Chelsea	11.16	19	2	17
Birmingham City	11.22	2	18	16	Bolton Wanderers	11.13	12	11	1	Sunderland	11.22	7	19	12
Middlesbrough	11.39	16	9	7	Newcastle United	11.37	15	8	7	Portsmouth	11.34	14	7	7
Newcastle United	11.89	15	12	3	Sunderland	12.27	7	19	12	Newcastle United	12.44	17	8	9
Fulham	13.22	18	15	3	Fulham	13.4	16	14	2	Fulham	13.69	15	14	1
Sunderland	13.33	10	19	9	Middlesbrough	13.87	17	16	1	Middlesbrough	13.94	16	15	1
Wigan Athletic	14.72	19	17	2	Wigan Athletic	15.5	18	18	0	Wigan Athletic	16.00	18	18	0

Table 23 indicates that altering the weightings on the model, and indeed the number of variables, actually makes little difference to the OPS and ranks. Indeed, the top 5 clubs are the same across all three variations. Similarly, most clubs appear in almost identical positions across all three tables meaning that the model can be justified in practice. To further justify the model and its workings, correlation analysis between the three OPS scores was conducted. The correlation *r* score between the OPS scores for the neutral ExPAM and the restated PAM (equal weights) and the restated PAM (justified weights) was 0.980 and 0.979 respectively whilst the *r* score between the two restated PAMs was 0.997. This indicates a strong relationship between the OPS scores for all three models and identifies that all three sets of scores are essentially stating identical results.

Since the decision has already been taken to use the restated PAM after running factor analysis, the proceeding narrative will focus on the two models furthest right in table 23. The stand out anomalies in these two tables was Chelsea and Birmingham City. This can be explained by the differences in weighting factors. Chelsea's financial performance was the worst among all clubs in 2008. In contrast, their sporting performance was one of the best. However, when the financial factors and financial sub-domain are weighted equally, their OPS was substantially better and their position in the table alters significantly. A similar scenario can help explain Birmingham City's positions, albeit this time the argument is reversed. Birmingham City ranked 3rd out of all clubs for financial performance in 2008 yet their sporting performance rank of 17 was more adverse. Their position in the equal weightings PAM is subsequently lower than it would be with justified weights. The restated PAM with justified weights can only be analysed in isolation owing to the fact that it presents only one year's worth of data. It is important at this stage not to make general assumptions over long periods of time and rather to focus on whether the model can be justified through what happened on and off the pitch for the season 2007-2008. Figure 12 below highlights the differences between the clubs' financial and sporting performance during the 2007/2008 season in the form of a scatter plot. This figure is derived using the rank scores from the PAM with justified weights.

Figure 12 - Scatter plot for financial and sporting performance 2007/2008

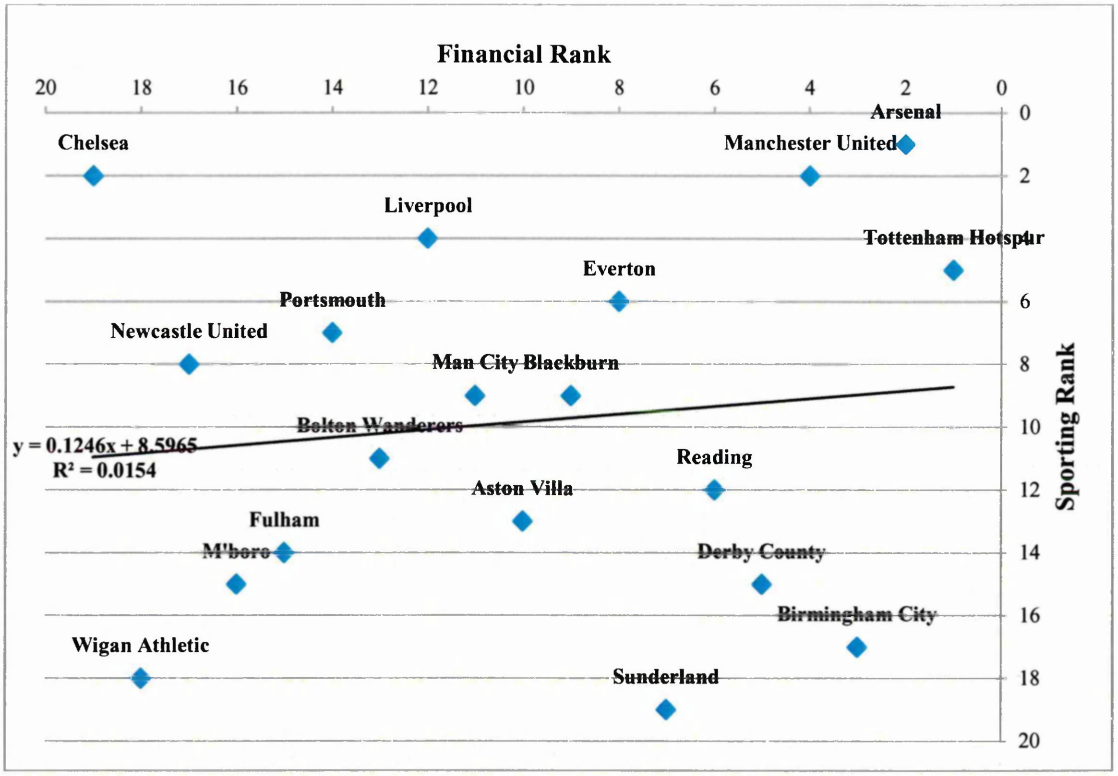


Figure 12 depicts a clear indication of the financial and sporting performance of the 19 clubs in the pilot study for the 2007/2008 season. A club showing good sporting performance but poor financial performance is placed towards to the top left corner of figure 12 (e.g. Chelsea, Newcastle United, Liverpool and Portsmouth). Contrastingly, a club showing good financial performance but poor sporting performance is placed towards the bottom right corner (e.g. Derby County, Birmingham City, and Sunderland). Clubs with both good financial and sporting performance scores are placed in the top right corner (e.g. Arsenal, Manchester United, and Tottenham Hotspur) whilst clubs displaying neither good financial or sporting performance are placed towards the bottom left corner (e.g. Wigan Athletic). When figure 12 is analysed in the PAM (justified weights) it appears that this model provides the most accurate results in relation to the performance of clubs in the pilot study year. For example, Chelsea, Liverpool and Portsmouth all reached cup finals in 2007/2008 meaning that their total game variance would have been higher than other clubs which will have subsequently boosted their sporting performance score. A further way to analyse the scores at these three clubs would be to consider the debate outlined in the literature review regarding profit versus utility maximisation (see Dobson and Goddard, 2011). It is arguable that during 2007/2008 Chelsea, and to a lesser extent Liverpool and Portsmouth, were showing characteristics of utility maximising behaviour. Chelsea, for example, recorded a net debt figure of £710.5m at the end of 2008 and their wages/turnover ratio was over 80%. Similarly, Portsmouth had a wages/turnover ratio of 76% and net debt of £50m. The club also recorded a £16m loss in 2008. Again, it is important at this stage not make general assumptions although further time series analysis may identify trends within a larger dataset.

6.7 Summary of the Pilot Study

The pilot study has helped to develop and justify the production of the PAM so that further data analysis can now be conducted over a longer period of time. Adapting the neutral ExPAM through factor analysis added scientific rigour to the process and weighting the variables in relation to the importance of the sub-domains provides a fairer and more reliable view after the calculations have been run. In relation to previous discussion surrounding measures of economy and efficiency and in light of the strong relationship between the OPS scores in all three models, the decision was chosen to utilise the justified weighting system throughout the remainder of the thesis (see figure 11). Not only did this model return the fairest representation of performance of clubs in the 2007/2008 season but the weighting factors applied in this model also reflect the main principles of UEFA FFP. At a time when the governing bodies of the European leagues are prioritising a change in the financial management of clubs, it is envisaged that the PAM with justified weights was the best model to proceed with for the remainder of the thesis. One further amendment was also made before data collection was undertaken. The weighting attached to the sporting variables was also altered to reflect the measures of economy discussed previously meaning that all sporting factors subsequently carried equal weight. Taking into account all procedures applied within the pilot study, including factor analysis and the comparison between three different models, it was reasonable to suggest that the PAM was scientifically robust enough to carry forward for full data collection which enabled a longitudinal approach to data analysis to be considered.

6.8 Full data collection - Inclusion criteria

The time period for the thesis runs from the formation of the EPL (at the end of the 1992/1993 season) up to and including the 2010/2011 season meaning that 19 seasons will be analysed in total. This also coincides with the latest Deloitte report available at the time of data collection (2012) which covers the financial year end at 2011 and performance on the pitch to the end of the 2010/2011 season. The same time period was also used to select the clubs that were analysed. This thesis focuses exclusively on the

EPL and the parameters outlined for club inclusion were designed to make sure that the clubs who have featured most frequently in the EPL were included. At the time of writing a total of 46 clubs have competed in the EPL (seasons 1992/93 - 2013/14 inclusive). However, some of these clubs have only competed in the league for one or two seasons so consistency and comparability would become an issue if the thesis were to focus on all 46 clubs. Subsequently, parameters were applied to assist with choosing the number of clubs to take forward for the full study. The EPL operates with 20 clubs competing on a seasonal basis (the first three seasons had 22 clubs but more consistently there have been 20 teams competing). As such the decision was made to focus on 20 teams for the thesis. A further criteria for selection was to select the top 20 clubs with the most number of seasons spent in the EPL in relation to the time period outlined above for data collection (1992/93 - 2010/11 inclusive). The clubs included in the thesis are subsequently outlined in table 24. Fourteen of the clubs in table 24 were also part of the pilot study. It is envisaged that using the teams that have competed in the EPL for the most seasons will provide a more reliable indication than those considered for the pilot study. The pilot study selected one year at random whereas the full dataset will provide a longitudinal analysis to the thesis that will help to answer the research aims and objectives.

Table 24 - Top 20 clubs with most seasons in EPL (1992/93 - 2010/11 inclusive)

Club	Number of Seasons
Arsenal	19
Aston Villa	19
Chelsea	19
Everton	19
Liverpool	19
Manchester United	19
Tottenham Hotspur	19
Newcastle United	17
Blackburn Rovers	17
West Ham United	16
Manchester City	14
Middlesbrough	14
Southampton	13
Bolton Wanderers	12
Leeds United	12
Fulham	10
Sunderland	10
Charlton Athletic	8
Coventry City	8
Leicester City	8
Sheffield Wednesday	8

Nb. The actual number of clubs has been expanded to 21 as table 24 shows that four clubs have spent 8 seasons in the league. It would be wrong to exclude only one of these clubs. Wimbledon also competed in the EPL for 8 seasons but they disbanded in 2004 and have subsequently been omitted from the dataset.

In relation to the clubs analysed in the thesis, one final amendment was made to the PAM. Owing to the fact that not all of the clubs listed in table 24 have completed exclusively in the EPL for the years under review, 'League Points' was substituted for 'League Position'. This variable is a cumulative measure (i.e. 1st place in the Championship would be equal to 21st place overall in the league structure). Owing to the fact that the sub-domain scores and OPS are calculated through the ranked performance, this will not alter the rank scores or the results of the PAM. This is because the clubs which compete in the EPL will still return better rank scores than those that have completed in the leagues below during certain seasons because their rank score will range from 1-20 whereas a club that has competed outside of the EPL for any given season will return a rank score of 21 or higher. The final PAM used for full data collection is stated below in figure 13 to reflect the amendments made.

Figure 13 - The Final Model – A PAM for the football club

Dimension	**Sub domain**				**Dimension**		**OPS**
	Indicator	*League rank*	*Weight*	*Score*	*Score*	*Weight*	
Financial	Revenue	2	0.15	0.30	4.15	0.625	3.42
	Pre-tax profit/(loss)	4	0.15	0.60			
	Net assets/(liabilities)	3	0.15	0.45			
	Net funds/(debt)	8	0.15	1.20			
	Wages/Turnover	4	0.40	1.60			
Sporting	League Position	5	0.333	2.00	2.64	0.375	
	Total Game Variance	2	0.333	0.60			
	Attendance Spread	1	0.333	0.30			

6.9 Headline Findings: 1993-2011

This chapter now presents the headline findings from the full dataset. Firstly, the financial headlines are discussed before the average performance of each club is considered across the 19 years analysed. The chapter concludes with comparisons between the EPL and the North American model and a discussion on profit and utility maximisation.

6.9.1 Financial Headlines

The original rationale for this thesis stated an increasing imbalance between rising revenue and rising costs culminating in the net debt of all EPL clubs in 2011 standing at £2.4billion (Deloitte, 2012). Furthermore, despite revenues increasing, only eight clubs made a pre-tax profit. Since the formation of the Premier League in 1992/93 and up to and including the 2010/11 season, revenues have risen exponentially. The average revenue amongst the 21 clubs selected has increased from £8.75m in 1993 to £97.75m in 2011. Hamil and Walters (2010) stated that between the 1992/93 season and the 2006/07 season combined financial turnover of clubs in the EPL increased by 900% from £170m to £1.5bn. A similar trend is identifiable in the dataset for this thesis which analyses a longer period of time. Combined turnover of the 21 clubs in the thesis increased by 1017% from £184m to £2 billion from the 1992/93 season to the 2010/11 season. In line with these rises in revenue, wage costs have also risen exponentially alongside clubs becoming less profitable and accumulating more debt. The average amount spent on wages in 1993 was just over £4m and the average wages to turnover ratio stood at 56%. At the end of the 2011 season these figures had risen to £70.1m and

79% respectively. The average pre-tax loss of the clubs stood at £20.9m in 2011 whilst the average amount of debt stood at £113.4m compared with £2.1m back in 1993. The total cumulative debt of all 21 clubs studied at the end of the 2011 season stood at over £2.3billion which mirrors the picture in the EPL alone as stated above by Deloitte. These rises in revenues are largely attributable to the increases in television broadcasting deals both domestically and abroad since the formation of the EPL whilst the increases in wage costs and debt are a product of clubs attempting to out-perform their competitors on the pitch and providing their owners with a notable 'trophy asset'. The changing finances of English football clubs during the last 20 years is also a product of the changes in ownership structure. Both Gerrard (2005) and Wilson, Plumley and Ramchandani (2013) found that teams that used to be listed on the London Stock Exchange have lower wage costs, higher revenues and better operating margins. In a business sense this is also considered best practice as the majority of businesses function with the intention of producing profit. However, in English football, despite the fact that revenues remain high amongst clubs, the data reflects a shift towards rising wage costs and decreasing profitability since the formation of the EPL in 1992.

6.9.2 The average performance of English football clubs since the formation of the EPL in 1992/93

In order to highlight the general trends across all clubs studied, the average results are now presented. This outlines which clubs have been most consistent in terms of their performance over the last 19 years in relation to other clubs. It must be noted that these findings are not generalizable outside of the English football industry owing to the functions of the model and the fact that clubs are ranked against one another. Firstly, the average financial score and sporting score are considered individually before the overall average index scores are analysed. Following this, a comparison of each club's average financial score and sporting score is presented in an attempt to analyse the data in relation to profit maximisation versus utility maximisation and whether or not certain clubs can actually be categorised into one of these brackets. The debate surrounding profit and utility maximisation was present in the majority of the literature (chapters 3 and 4) and is an important theoretical concept with regards to the nature of professional team sports. Table 25 below firstly presents the average financial index scores for all clubs for the years 1993-2011 inclusive.

Table 25 - Average Financial Index Scores for the years 1993-2011 inclusive

Rank	Club	Average Financial Score
1	Manchester United	2.64
2	Tottenham Hotspur	5.07
3	Arsenal	6.37
4	Liverpool	8.19
5	Aston Villa	8.64
6	Leeds United	9.57
7	Newcastle United	9.60
8	Sunderland	10.11
9	West Ham United	10.61
10	Sheffield Wednesday	11.40
11	Everton	11.62
12	Chelsea	11.82
13	Southampton	12.04
14	Bolton Wanderers	12.18
15	Leicester City	12.23
16	Manchester City	12.43
17	Charlton Athletic	13.16
18	Blackburn Rovers	14.36
19	Middlesbrough	14.61
20	Coventry City	15.74
21	Fulham	17.00

Table 25 shows that Manchester United returned the best financial scores on average over the nineteen seasons studied. Manchester United's average financial index score of 2.64 is considerably better than Tottenham Hotspur who ranked second overall with an average financial index score of 5.07. Table 25 suggests that Manchester United show the best financial performance among all 21 clubs but, as previously stated, it is important to review such findings within the context of the industry that the club operates in. Furthermore, Manchester United were previously an example of a stock market listed football club which means that there is a greater requirement for financial performance to be consistently good. The club has since moved to the foreign ownership model (post 2005) and there is an argument that there financial performance in particular could decline in future years.

Presently, the English football industry has a significant problem with increasing debt and rising wage costs among clubs. Both these variables are including in the model and whilst Manchester United rank highest overall for average financial performance, there is an argument that they could effectively be labelled as the 'best of a bad job'. The 'bad job' reference is in relation to the industry (English football) that is seen to be performing poorly based on the evidence outlined in the literature.

It is unsurprising that four well-established clubs occupy the top four places of this table. Tottenham Hotspur and Manchester United were two of the first clubs to float on the stock market in 1983 and 1991 respectively (Dobson and Goddard, 2011) whilst it is still possible to purchase shares in Arsenal. Clubs that have floated on the stock market have historically recorded preferable financial figures to those that have not (see Gerrard, 2005 and Wilson, Plumley and Ramchandani, 2013). However, it would be too simplistic to suggest that this is the only factor that places these clubs at the top of this table. These clubs have also benefitted from the growth of the EPL in general and the increased financial rewards that come from the broadcasting deals and the commercial profile of the league. Of the seven clubs that have been ever present in the Premier League since its formation in 1992 (Arsenal, Aston Villa, Chelsea, Everton, Liverpool, Manchester United and Tottenham Hotspur), five appear in the top five of table 25. These clubs will have benefitted from every increase in broadcasting deals that has taken place since the formation of the EPL. The latest television deal is worth an estimated £3bn over the next three seasons. This is a 71% increase on the previous deal and equates to an estimated £14m extra for each EPL club. By way of an example, let us consider the distribution of broadcasting revenue for the latest season available (2013/14) detailed in table 26.

Table 26 - Broadcasting distribution payments 2013/14

			£'000				
Club	League Position	Live TV Apps	Equal Share	Facility Fees	Merit Payment	Overseas TV and Central Commercial	Total Payment
Manchester City	1	25	21,631	19,658	24,721	30,566	96,578
Liverpool	2	28	21,631	21,860	23,485	30,566	97,544
Chelsea	3	25	21,631	19,658	22,249	30,566	94,106
Arsenal	4	25	21,631	19,658	21,013	30,566	92,870
Everton	5	16	21,631	13,052	19,777	30,566	85,027
Tottenham Hotspur	6	24	21,631	18,924	18,451	30,566	89,663
Manchester United	7	25	21,631	19,658	17,305	30,566	89,161
Southampton	8	10	21,631	8,648	16,069	30,566	76,915
Stoke City	9	7	21,631	8,648	14,832	30,566	75,679
Newcastle United	10	14	21,631	11,5584	13,596	30,566	77,379
Crystal Palace	11	10	21,631	8,648	12,360	30,566	73,207
Swansea City	12	13	21,631	10,850	11,124	30,566	74,173
West Ham United	13	14	21,631	11,584	9,888	30,566	73,671
Sunderland	14	13	21,631	10,850	8,652	30,566	71,700
Aston Villa	15	16	21,631	13,052	7,416	30,566	72,666
Hull City	16	9	21,631	8,648	6,180	30,566	67,026
West Brom	17	9	21,631	8,648	4,944	30,566	65,790
Norwich City	18	9	21,631	8,648	3,708	30,566	64,554
Fulham	19	8	21,631	8,648	2,472	30,566	63,318
Cardiff	20	8	21,631	8,648	1,236	30,566	62,082
Sub-total			**432,628**	**259,577**	**259,577**	**611,333**	**1,563,117**

The way in which the broadcasting payments are distributed (25% for merit payments and 25% for facility fees) means that the clubs that finish consistently towards the top of the table and are most televised will always receive a greater distribution in total. This is evidenced in table 26 as champions Manchester City and runners up Liverpool received over £95m in broadcasting payments. This figure was over £30m more than Wolverhampton Wanderers who finished bottom. Due to the escalation in broadcasting rights payments since the formation of the EPL it is unsurprising that the top five clubs for financial performance have been ever present in the league. Furthermore, Arsenal and Manchester United have the two biggest stadia in England and can subsequently generate more income through match day receipts.

In contrast to the clubs at the top end of table 25, Fulham show the worst financial performance for the 19 years analysed. Fulham's average financial score of 17.00 is substantially worse than any other club, despite the fact that Fulham have been an established EPL club since obtaining promotion in 2001. However, before being promoted, Fulham overspent in an attempt to reach the EPL and their wages/turnover ratio and net debt was the highest out of all clubs for the years preceding 2001.

Furthermore, whilst competing in the lower leagues, Fulham's revenue figure was the lowest out of all clubs. During the majority of the seasons studied, Fulham have been reliant on their main benefactor (Mohammed Al-Fayed became the majority shareholder in 1997 but has since sold the club to Shahid Kahn in 2013) highlighting the pronounced changes in the ownership structure of professional football clubs as described by Walters and Hamil (2010). In light of the new regulations put in place by UEFA and the EPL with regards to FFP, it is of increasing importance that Fulham continues to maintain its EPL status in the future. The caveat to this is that EPL regulations are far more lenient than UEFA's allowing clubs to make a £105m loss over three years (2013-2016). This is considerably more than the overall loss that UEFA allow over the same time period which is set at roughly £38m (€45m). However, it must also be noted that Fulham were reportedly one of six clubs that voted against the regulations suggested by the EPL. This is arguably unsurprising considering that Fulham's net debt was around £192m in 2011 (the last year of data this thesis used). With debt as high as £192m Fulham would presently find it difficult to meet the EPL regulations and would certainly face scrutiny from UEFA if they were to qualify for European competition with UEFA's limit being significantly lower. Furthermore, it is also envisaged that it would be difficult for Fulham to close the financial gap between themselves and the more established clubs (e.g. Manchester United, Tottenham Hotspur, and Arsenal) in light of the new EPL regulations. The club's stadium is considerably smaller than the large majority of EPL clubs (capacity is currently 25,700) and geographically the club is competing for fans with more established successful clubs such as Chelsea. In the current economic climate, it is increasingly difficult for the club to grow its revenue streams in an attempt to close the gap on the clubs that are positioned towards the top of table 25.

Table 27 - Average Sporting Index Scores for the years 1993-2011 inclusive

Rank	Club	Average Sporting Score
1	Manchester United	2.95
2	Arsenal	3.68
3	Chelsea	5.91
4	Liverpool	6.40
5	Newcastle United	7.65
6	Tottenham Hotspur	8.65
7	Blackburn Rovers	11.19
8	West Ham United	11.19
9	Manchester City	11.51
10	Middlesbrough	11.56
11	Fulham	12.07
12	Aston Villa	12.11
13	Bolton Wanderers	12.14
14	Southampton	12.16
15	Everton	12.25
16	Leeds United	12.53
17	Charlton Athletic	12.58
18	Leicester City	13.46
19	Sunderland	14.77
20	Coventry City	15.16
21	Sheffield Wednesday	16.21

Manchester United also rank first for sporting performance, as well as financial performance, on average over the nineteen year period studied. This is attributable to the club winning 12 EPL titles, 4 FA Cups, 3 League Cups and 2 European cups during the time period analysed in this thesis. Arsenal (3 EPL titles, 5 FA Cups, 1 League Cup) and Chelsea (3 EPL titles, 6 FA Cups, 3 League Cups, 1 Cup Winners Cup and a maiden European Cup in 2012) have also produced consistently good on-field performances during this time and subsequently rank 2nd and 3rd respectively in table 27. Aside from these three clubs, only Blackburn Rovers (1994) and Manchester City (2012 and 2014) have won the EPL and Manchester City's two league titles are not included in these figures as they fall outside of the time period for data collection.

The subsequent robustness of the model is reflected in the rankings in table 27 as Manchester United, Arsenal and Chelsea have not only won trophies on a regular basis since 1992 but they have also sold out their stadiums consistently meaning that their attendance spread figure (the third indicator of sporting performance in the model) has been the lowest among all clubs. In contrast, this is also the reason why Coventry City and Sheffield Wednesday were the lowest two ranked clubs for sporting performance. Both these clubs recorded some of the highest attendance spread figures during the years studied and both clubs were relegated from the EPL in 2000 (Sheffield Wednesday) and 2001 (Coventry City) meaning that the rank score that the clubs achieved for league position were consistently lower than other clubs. These two indicators are linked in the model under sporting performance. They account for two thirds of the weighting attached to the sporting performance domain and the poor scores returned by both of these clubs are directly responsible for their position at the bottom of table 27. Additionally, the high attendance spread figures at these two clubs suggests that the fans of both Coventry City and Sheffield Wednesday are more volatile in their support of their club than fans of other teams. Attendance spread figures at these two clubs regularly exceed 10,000 indicating that the attraction of watching these clubs, for some, depends on the quality of the visiting team.

Lastly, through reflection of the pilot study evidenced in this chapter, the variables utilised for sporting performance can been seen to have provided progression in this area. Previous research that has used non-financial (sporting) variables (see Guzman and Morrow, 2007; Haas, 2003; Haas et al., 2004) do not employ techniques such as factor analysis to look for the relationship between variables. Instead, the variables they use are at their own discretion. Subsequently, the formation of the PAM means that table 27 provides a reasonable representation of the sporting performance of the 21 selected clubs during the last 19 years. It is evident that the model is using the correct variables and that there is no double counting by including variables that are measuring the same thing. Previous pieces of work in academic literature have been considered robust enough to state that the analysis reflects a true and fair view of the results and the formation of this model and the progression it provides within this area means that the results discussed in this thesis can also be considered reliable, valid and providing a true and fair view of clubs' performance.

Table 28 – Average OPS for the years 1993-2011 inclusive

Rank	Club	Average OPS
1	Manchester United	2.76
2	Arsenal	5.36
3	Tottenham Hotspur	6.41
4	Liverpool	7.52
5	Newcastle United	8.87
6	Chelsea	9.61
7	Aston Villa	9.94
8	Leeds United	10.68
9	West Ham United	10.83
10	Everton	11.86
11	Sunderland	11.86
12	Manchester City	12.09
13	Southampton	12.09
14	Bolton Wanderers	12.16
15	Leicester City	12.69
16	Charlton Athletic	12.94
17	Blackburn Rovers	13.17
18	Sheffield Wednesday	13.20
19	Middlesbrough	13.47
20	Fulham	15.15
21	Coventry City	15.52

Consistency across both performance areas means that Manchester United is the best performing club on average. The club has recorded one of the largest net debt figures in recent years (owing to the Glazer takeover in 2005) but its ability to generate revenue and profit remains unrivalled and its position at the top of the EPL and dominance in both domestic and European cup competitions consolidates its position as the best performing club in England. A similar scenario can be found at Arsenal although its net debt figure has been one of the highest across all clubs since 2003. This debt must be considered in context however. It was in large part due to the construction of a new stadium which has subsequently meant that they have been able to get closer to Manchester United in terms of revenue generation and attendance spread.

Despite Chelsea ranking 3rd for sporting performance, the club ranked 6th in relation to the overall performance. This is because the model is weighted higher (62.5%) in terms of financial performance for which Chelsea ranked 12th. Similarly, the format of the model means that the clubs that returned high scores across both financial and sporting domains rank towards the bottom of table 28. Coventry City for example returned an average financial score of 15.74 and an average sporting score of 15.16 to return a OPS of 15.52.

Through further analysis it is possible to examine the relationship between financial and sporting performance on average over the nineteen seasons. This will allow for more meaningful discussions relating to the literature surrounding profit and utility maximisation. Figure 14 below examines the relationship between financial and sporting performance over the nineteen seasons analysed on a scatter chart. Here a club's average financial score is plotted against its average sporting score. In theory, a scatter chart such as this one should help to ascertain whether or not a club could be categorised as a profit maximiser or a utility maximiser. There is subjectivity attached to this method of categorisation but, nonetheless, it does provide an outline of how certain clubs could be categorised based on their financial and sporting performance. Hypothetically, a club placed towards the bottom right quadrant of figure 14 could be classed as a profit maximiser (good financial performance but relatively poor on-pitch performance) whereas a club placed more towards the top left quadrant could be classified as a utility maximising club (good sporting performance but relatively poor financial performance). The 'perfect' score for each indicator is 1 meaning that it is desirable for a club to be placed in the top right quadrant of the diagram as close to the x and y value 1 as possible.

Figure 14 – Average Financial Performance versus Average Sporting Performance for the years 1993-2011 inclusive

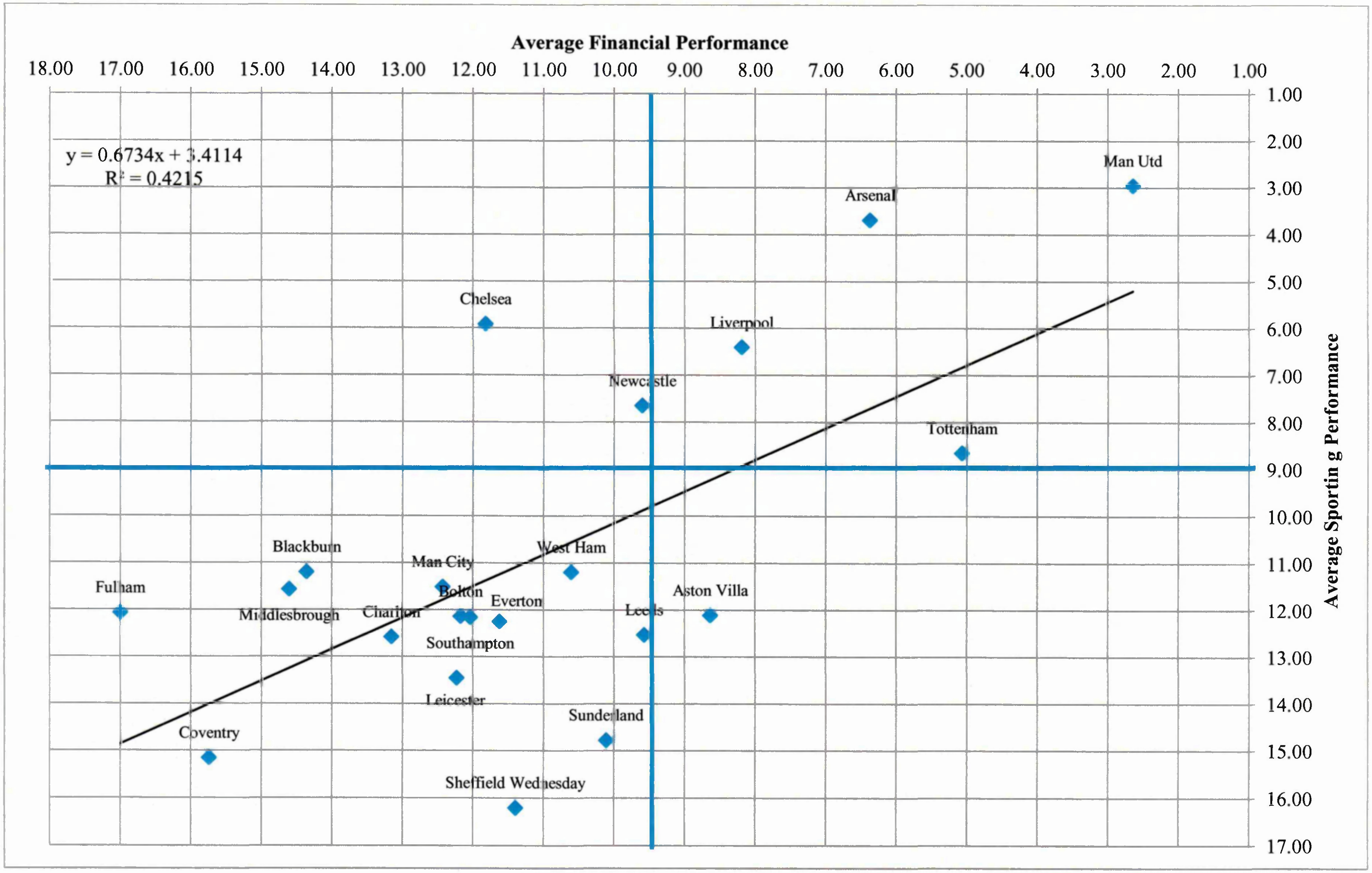


Figure 14 once again highlights that Manchester United has been the most consistent performer across the elite clubs in England since the formation of the EPL when analysed in the model. Manchester United is actually very close to the perfect score (1,1) at the top right hand corner of figure 14. The top right hand quadrant indicated in figure 14 highlights occurrences where a club is performing well both financially and on the pitch. Many authors and academics who have written around this subject (see Buraimo, Simmons and Szymanski, 2006 and Dobson and Goddard, 2011 for example) have stated that occurrences like this have been rare in recent years and, superficially, figure 14 confirms this. Aside from Manchester United, only three other clubs are placed in the top right quadrant (Arsenal, Liverpool and Tottenham Hotspur). Furthermore, all of these three clubs are closer to fitting into other quadrants than being closer to Manchester United. Tottenham Hotspur's financial performance is the closest challenger to Manchester United whilst Arsenal is the closest in terms of sporting performance.

Figure 14 also provides justification to the theoretical debate surrounding profit and utility maximisation as it places clubs in one of the four defined quadrants. Academics have previously argued that many European football clubs follow the principles of utility maximisation and the model allows for this to be tested more objectively than has previously been the case in the past. Surprisingly, figure 14 suggests that only a small number of clubs appear to have been utility maximisers based on the average results which slightly contrast the arguments in the literature. As previously stated, the top left quadrant of figure 14 is most closely related to utility maximisation. Contrastingly, the opposite quadrant (bottom right) is most closely related to profit maximisation. Interestingly, in relation to the nineteen year averages, there are only three clubs that are placed in these two sections. Chelsea and Newcastle United are the only clubs placed in the top left quadrant (utility maximisation) and Aston Villa are the only club placed in the bottom right quadrant (profit maximisation). Chelsea were one of the first clubs to be taken over by a new wave of foreign investors when Russian billionaire Roman Abramovich purchased the club in 2003 and he has since invested over £700m of his own personal money largely to fund player transfers and player wages. Subsequently, Chelsea's financial performance suffered because of this with the club posting substantial losses and accumulating large amounts of debt in recent years since the Abramovich takeover. However, as a result of this investment and the purchases of more skilled players, the club has thrived on the pitch in recent years and has won a number of major trophies since 2003.

A similar scenario is occurring currently at Manchester City, which is now owned by members of the Abu Dhabi royal family. Manchester City recorded a maiden title success in 2011/12, following this up with a second EPL title in 2013/14, and has invested heavily in the playing staff during the last four years in an attempt to challenge the established elite in English football. In future years, with reference to figure 14, it is reasonable to suggest that Manchester City will also move into the top left quadrant of utility maximisers. However, with new financial fair play regulations now being in place through UEFA and the EPL there is an argument to suggest that the club will move directly upward from their current position in figure 14 rather than upward and left if there were no regulations in place to control clubs' finances. This is envisaged to be the case owing to the fact that financial performance will have to improve to conform to the regulations and the utility maximisation approach may decline as a result. For example, Manchester City has improved on the pitch since the takeover by Abu Dhabi United in 2008, yet they still have to follow the FFP regulations. Subsequently, in future years, the club would be more likely to move upward in figure 14 but not further left towards poorer financial performance and the utility maximisation quadrant. Newcastle United is the only other club to be placed in this quadrant and the club has previously been known to purchase high profile players for substantial amounts of money. Newcastle United's on-pitch success has been negated in recent seasons however and the club were also relegated at the end of the 2008/09 season before making an immediate return to the EPL the following season. Notwithstanding this, it is arguable that Newcastle did display utility maximisation characteristics on the pitch during the first six or seven years of the Premier League when the club came close to winning the league title and regularly qualified for the flagship European competition in the form of UEFA's Champion's League. However, during the same time period its financial performance was relatively satisfactory. The club's wages/turnover ratio did not rise above 50% until 1999 and their revenue up until that point was consistently ranked in the top 5 for all 21 clubs. This offers explanations as to the club's position that is more towards the middle of figure 14 as opposed to further left on the graph as is the case with Chelsea.

Aston Villa, the only club to be placed in the bottom right hand quadrant, is also owned by a foreign investor. However, the results suggest that the owner of Aston Villa has not invested as heavily as his counterparts at Chelsea and Manchester City. Taking into account average performance, Aston Villa's financial performance would have been good enough for the club to be placed in the top quadrant (8.64). However, inconsistencies in the club's on-pitch performance means that they are placed lower than the leading clubs in figure 14. So far, the three quadrants outlined have housed a total of seven clubs. This leaves a further fourteen clubs that fall into the final quadrant (the bottom left corner of figure 14). This quadrant supports the hypothesis that there has, in recent years, been a 'financial crisis' in English football (see Buraimo, Simmons and Szymanski, 2006) with certain clubs displaying neither good financial performance or reporting any significant success on the pitch. In relation to the model, the worst performing clubs would be placed furthest towards the bottom left corner of figure 14 meaning that Fulham, Coventry City and Sheffield Wednesday can be categorised as the worst performing clubs overall in relation to the years analysed. It must be noted that some of these clubs (e.g. Coventry City, Sheffield Wednesday, Leicester City, and Leeds United) have been relegated from the EPL in recent years and have yet to return. However, it is also interesting to note that there are some established EPL teams that are placed in this quadrant. Indeed, six clubs in this quadrant are current EPL clubs at the time of writing (2013/14 season) and Everton are one of only seven clubs who have competed in every EPL season since its formation in 1992. Superficially, figure 14 suggests that the clubs in this quadrant are performing insufficiently in all areas of measurement compared to their competitors in the industry. Furthermore, figure 14 highlights that financial performance and sporting performance are not mutually exclusive as there are occurrences where clubs have recorded good financial performance and good sporting performance, most notably at Manchester United, Arsenal and Tottenham when analysing figure 14.

Lastly, figure 14 also indicates that there is a moderate correlation between financial performance and sporting performance (r=0.42). Whilst this is not a strong correlation, it does suggest that, superficially, better financial health is moderately associated with better performance in the EPL. This confirms findings by Wilson, Plumley and Ramchandani (2013) who found a similar moderate relationship between financial and sporting performance in EPL clubs. Again, this paper covered a smaller time period (2001-2010) and this thesis offers progression in this area by considering results over a longer period of time between 1992 and 2011.

6.9.3 Time Series Analysis and Correlation over Time

The average OPS for each club (detailed in table 28), suggests that Manchester United were considerably better than the other 20 clubs in the thesis. Notwithstanding this, there have been certain years where the club's performance fluctuated slightly. Through applying a time series analysis for each club, it is possible to deduce how performance has changed over time and where any peaks or downturns have occurred. To this end, figures 15, 16 and 17 chart each club's variability in financial, sporting and overall performance for the period 1993-2011. The following figures are examples of open, high, low, close stock charts as used to track share price performance. The open figure is the first score for each club recorded in 1993 whilst the close figure is the latest score recorded in 2011. The high and low figures represent a club's best and worst score during the same time period. If a club showed minimal variance in their performance then all four figures would be closer together whilst figures further apart would suggest a high level of variance. Figure 15 firstly presents the financial variability amongst all clubs.

Figure 15 - Financial Variability 1993-2011

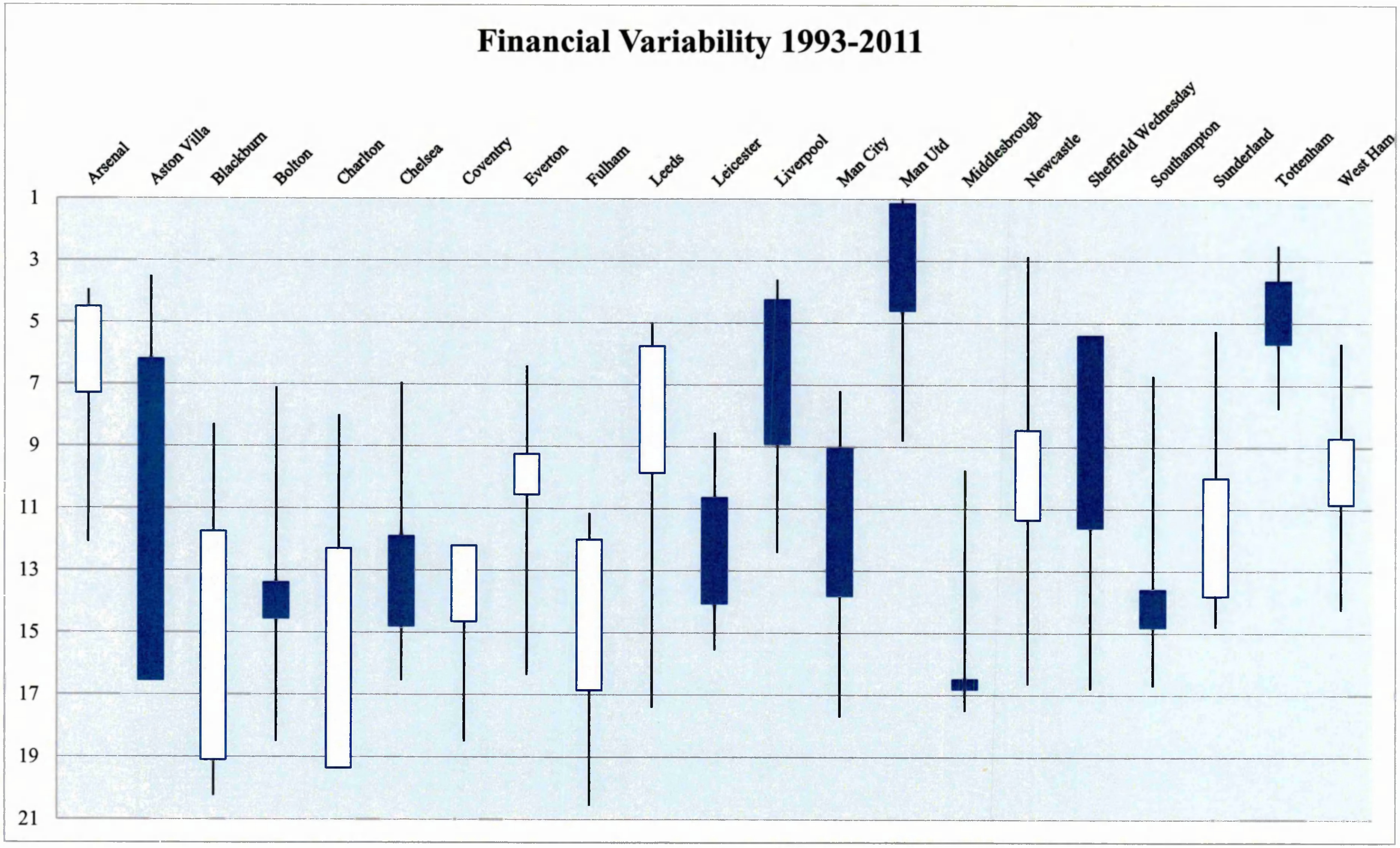
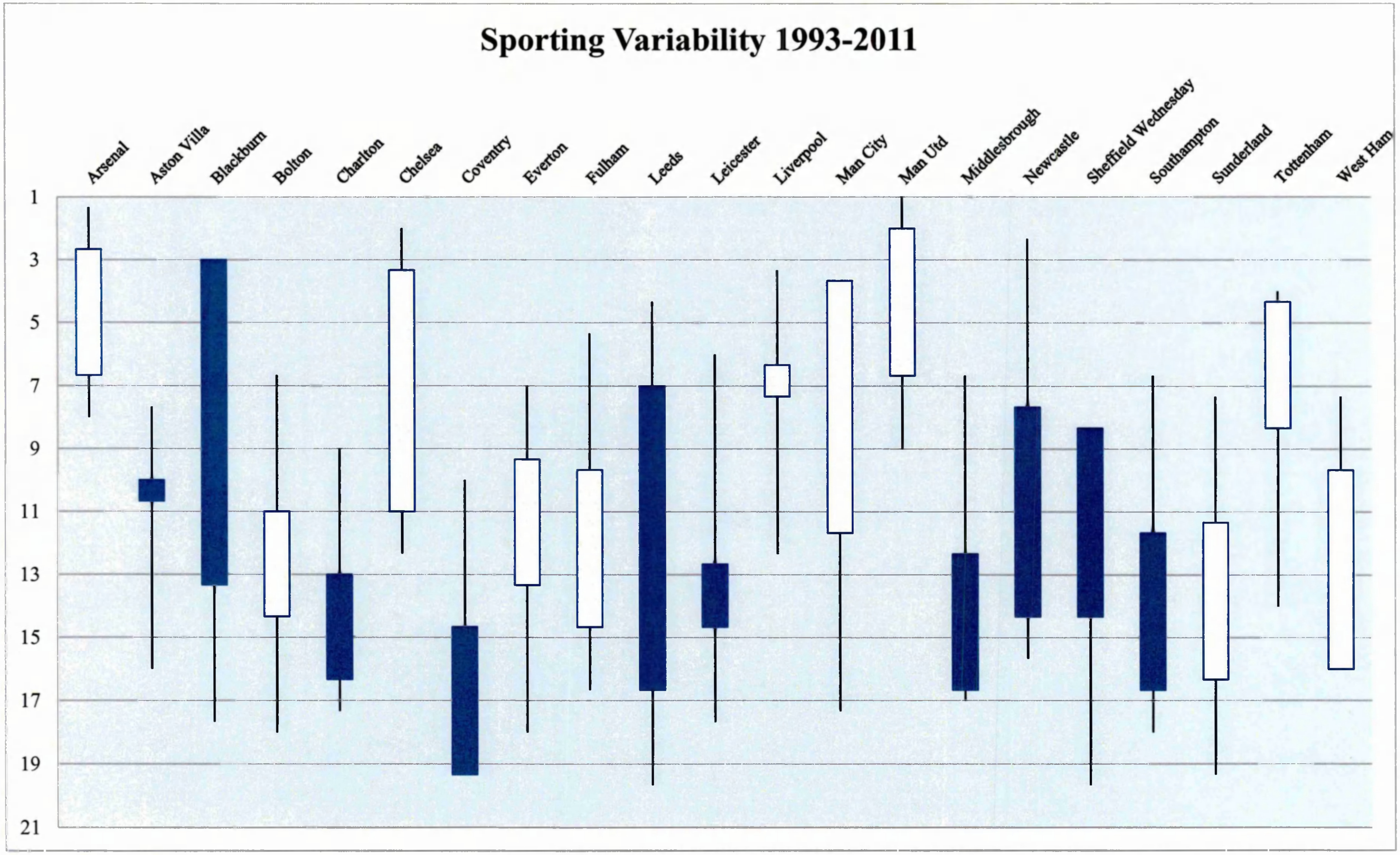


Figure 15 indicates a high degree of variance in relation to financial performance across all clubs. The thicker bars represents the difference between a club's opening score (1993) and closing score (2011) whilst the two points at either end of this bar represent a club's highest and lowest score. It is important once again to note that a lower score is more desirable owing to the functionality of the PAM, hence why the vertical axis on figure 15 has been reversed.

The majority of clubs in figure 15, apart from Bolton Wanderers and Middlesbrough have longer measures in down bars indicating high variance in performance. However, both Bolton and Middlesbrough also have high variance in relation to their best and worst scores (7.1 - 18.5 and 9.75 - 17.5 respectively). The most consistent club, in relation to financial performance, appears to be Tottenham Hotspur owing to the fact the club's high and low points are the closest together and its opening score of 3.65 in 1993 is not too dissimilar to their closing score of 5.65 in 2011.

The bars shaded in white depict occurrences where a club has shown an improvement between their open score 1993 and their close score in 2011 whilst bars shaded blue represent occurrences where a club has recorded a worse close score in 2011 than they did in 1993. For financial performance, there are 10 clubs who have shown improvement in the opening and closing figures and 11 clubs who have not.

Figure 16 - Sporting Variability 1993 - 2011



Similar to financial performance, figure 16 records a high degree of variance in sporting performance for each club. The open - close bars are long among most clubs aside from Aston Villa and Liverpool. Once again, however, the high and low values for these two clubs are wide ranging (7.67 - 16 and 3.33 - 12.33 respectively). The most consistent clubs in terms of sporting performance appear to be Arsenal and Manchester United. This is also reflective of the headline sporting results indicated previously in this chapter and also the number of trophies that these two clubs have amassed since the formation of the EPL. Whilst Tottenham Hotspur's financial performance was broadly consistent, its sporting performance varied significantly. Tottenham Hotspur has improved its sporting performance considerably since 2007 recording scores of between 4 and 5 although their sporting score was inconsistent in the years prior to this with a score as low as 14 in 1997.

The white bars again show where a club has improved in relation to it open and close scores whilst blue bars represent a decrease in performance. The distribution here is fairly equal once again with 11 clubs reporting better scores in 2011 compared to 1993 and 10 clubs that did not. It is also interesting to note that some of these clubs did not show an improvement in both financial and sporting performance in relation to the open and close figures. For example, Charlton Athletic showed an improvement in financial scores in 2011 compared to 1993 but this was not reflected in their sporting performance. It is important not to read too much into the colours of the bars however as it represents the differences between two data points in a 19 year study. The main analysis should be concerned with the length of the overall bar including the points at the top and bottom which indicate the degree of variance in a club's performance over time.

Figure 17 - Overall Performance Variability 1993-2011

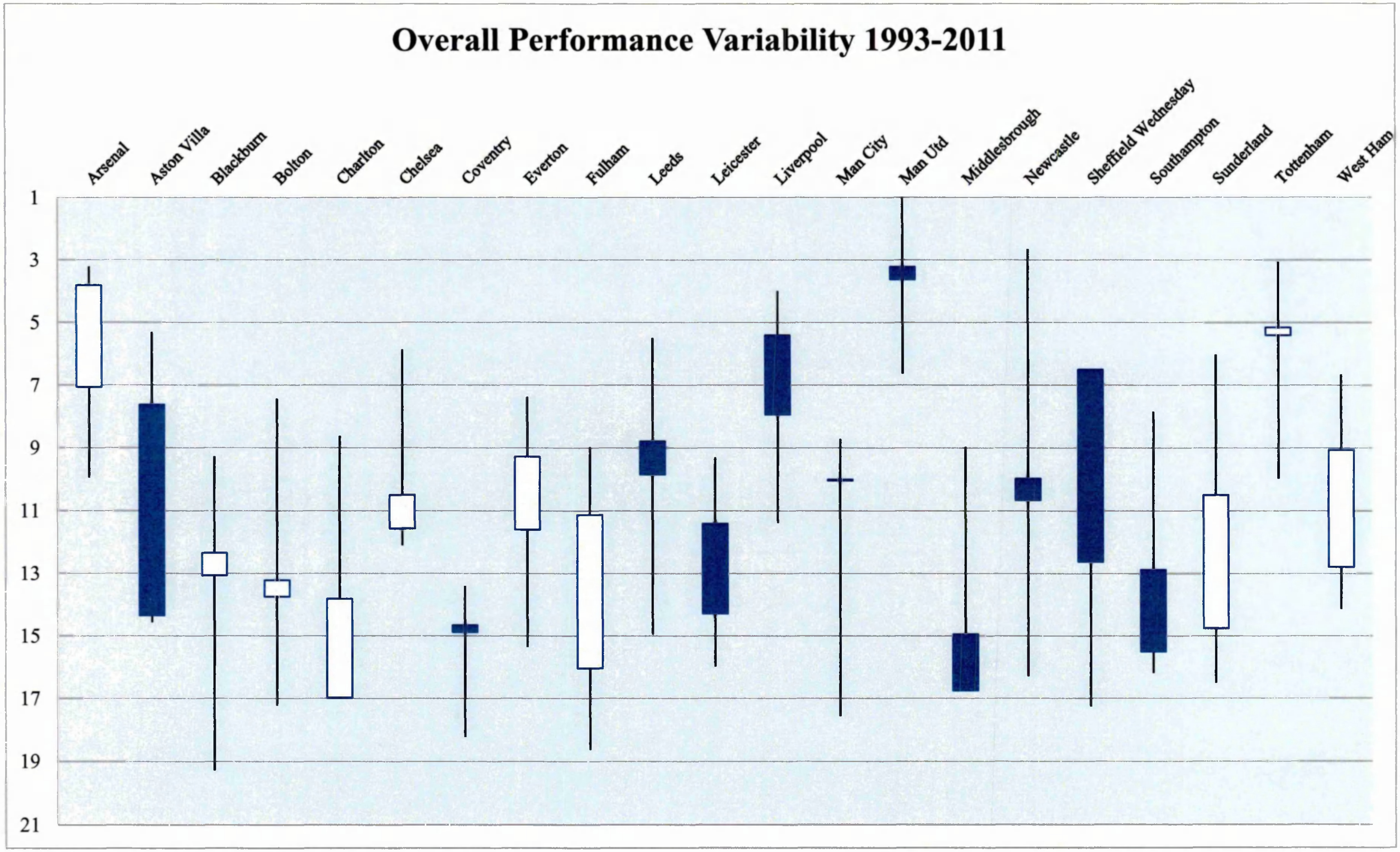


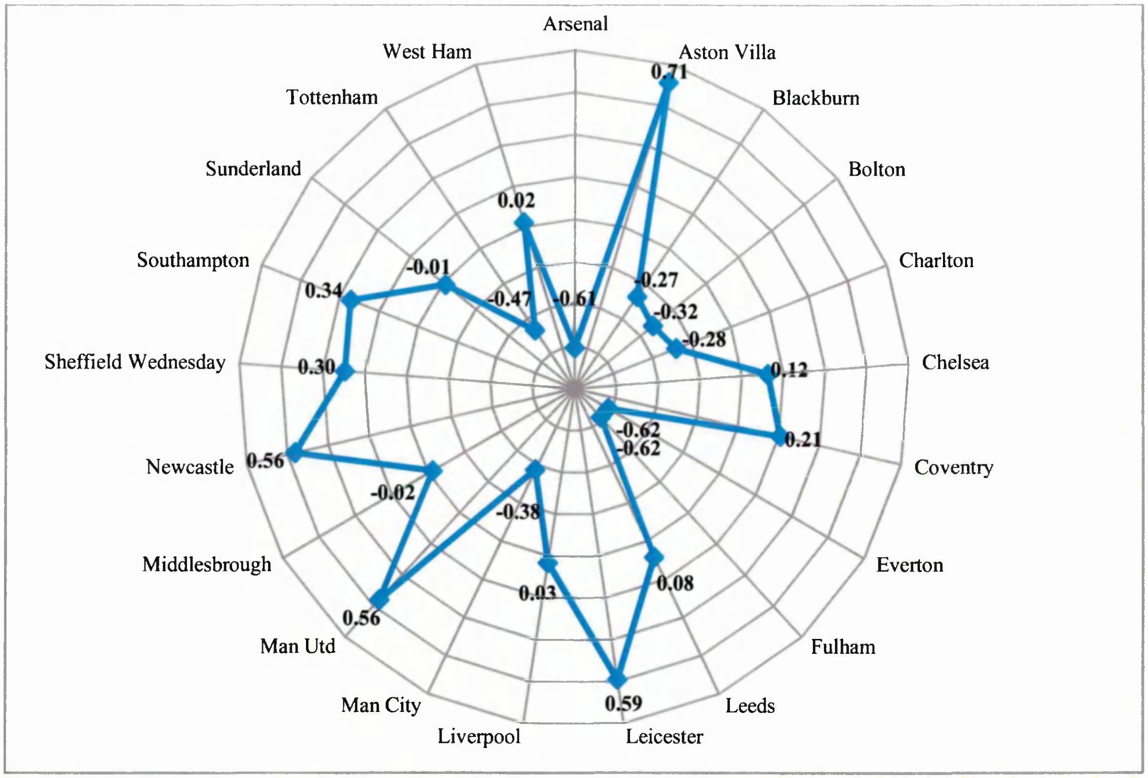
Figure 17 records the variability in overall performance for all clubs for the time period analysed. Unsurprisingly, based on the findings of figures 15 and 16, there is a high level of variability in relation to overall performance for the majority of clubs although this time the main variance is between the highest and lowest scores. Many clubs, including Blackburn Rovers, Bolton Wanderers, Chelsea, Manchester City, Manchester United, Newcastle United and Tottenham Hotspur record smaller changes between their opening and closing score although there is still a high degree of variance between their high and low scores, particularly at Blackburn Rovers, Bolton Wanderers, Manchester City and Newcastle United. This suggests that these clubs have experienced both positive and negative fluctuations between the years 1993 - 2011. Indeed, this is certainly the case at Manchester City and Newcastle United. Manchester City recorded a highest score of 8.72 in 2001 and a lowest score of 17.56 in 1998. There was a greater disparity in the scores recorded by Newcastle United with the club recording a highest score of 2.66 in 1997 and a lowest score of 16.28 in 2010. This also suggests that football club performance often runs in cycles, where sometimes clubs have a successful period spanning a number of years before declining for a period of time.

The smallest variances in performance occur at Arsenal, Coventry City and Manchester United although in the case of Coventry City this cannot necessarily be classed as positive news as the club never recorded an OPS higher than 13.41. In the case of Manchester United, there have been four occurrences where its OPS has weakened slightly (e.g. 1996, 2007, 2008 and 2010). These occurrences can be explained by scrutinising the raw data extracted from the secondary data sources. In 1996 the club ranked worst for attendance spread after their lowest home game attendance for that season (31,966 versus West Ham United) meant that their attendance spread figure was an unusually high 21,960. In relation to attendance spread, this was an anomaly in the data as Manchester United's attendance spread figure was never as high as 31,966 in the 18 other seasons analysed. Furthermore, the 2007 accounts was the first set of accounts that included the transactions relating to the Glazer takeover of the club, a takeover that was leveraged through debt finance. As a result, Manchester United's debt position went from a relatively healthy £6m in funds in 2006 to a net debt of almost £605m in 2007. Subsequently, Manchester United ranked 20th out of 21 for the net funds/(debt) variable in every year from 2007 to 2011.

The next best performing club, Arsenal, returned an average OPS of 5.36 and showed similar consistency to Manchester United with all its scores falling between 3 and 7 aside from 1997 where the club recorded an OPS of 9.93. With reference to figure 17 and the time series analysis, it is evident that there is no clear pattern emerging over time in relation to performance. Rather, the performance of each club appears to vary over time with each club susceptible to upturns and downturns in performance at any given time. There are certain instances where a club returns an annual OPS that differs significantly from its average OPS (e.g. Chelsea in 1999, Leeds United in 2003 and 2004, Sunderland in 2001, Bolton Wanderers in 2005, 2006 and 2007, and Sheffield Wednesday in 1993) but these occurrences are random and cannot be depicted into a trend over time. In order to test this assumption, further scrutiny of the time series analysis is considered through the correlation between overall performance and time for each club.

The correlation analysis (see figure 18) illustrates that, with the passage of time, comparative overall performance has remained relatively unchanged for nine of the 21 clubs - Blackburn Rovers, Charlton Athletic, Chelsea, Coventry City, Leeds United, Liverpool, Middlesbrough, Sunderland and West Ham United ($-0.30 < r < 0.30$) - declined either moderately or strongly for six clubs - Aston Villa, Leicester City, Manchester United, Newcastle United, Sheffield Wednesday and Southampton - ($0.30 < r < 0.71$) - and improved either moderately or strongly for the remaining six clubs - Arsenal, Bolton Wanderers, Everton, Fulham, Manchester City and Tottenham Hotspur ($-0.62 < r < -0.32$). Figure 18 provides indicative evidence that, for the majority of these clubs, overall performance, as measured using a mix of financial and sporting indicators, varies over time in cycles.

Figure 18 - Correlation between OPS and time (1993 = 1, 2011 = 19) by club



Note: A higher (positive) value correlation coefficient in this instance implies an inverse relationship with time (i.e. declining trend in club performance) whereas a lower (negative) value correlation coefficient implies an improvement over time.

6.9.4 Comparisons between the EPL and the North American model

As previously stated in chapter 4, the two main models of professional team sports (North American and European) have both similarities and differences. In both Europe and the United States, sports leagues are joint ventures that can be viewed as a single entity or cartel. However, there are differences in the structure of the leagues with the North American sports model operating a draft system, salary caps and closed leagues with no promotion or relegation element (Andreff and Staudohar, 2000). Consequently, the American model lends itself to competitive balance and no one team holds a monopoly in American team sports. Contrastingly, in the English football industry the inverse is true. Dobson and Goddard (2011) stated that it is not beneficial for one football team to establish a monopoly owing to the 'joint production' of team sports. Academics such as Dobson and Goddard have often championed the argument that the greatest benefits to a team is where the competition is close to equal which is centred around the principles of uncertainty of outcome. The vast majority of literature on the economics of professional team sports cites competitive balance or competitive imbalance as an important issue. Dobson and Goddard (2011) further argued that the problem of measuring competitive balance or competitive inequality within a sports league has attracted considerable attention in the academic sports economics literature in recent years. It is difficult to offer commentary on competitive balance for this thesis in relation to the way in which the model operates. The overall index scores are a product of a rank score meaning that no matter how close together or how far apart the scores are a team will always receive a rank that ranges from 1-21. Whilst figure 14 does contain minimal reflections on competitive balance it, more importantly, offers insights into the concepts of utility and profit maximisation outlined in North American team sport literature. First, let us consider the on-pitch success of EPL clubs compared to American clubs.

Ramchandani (2012) argued that there has been an increase in competitive imbalance in the EPL in recent years. This is further supported by the fact that only five clubs (Arsenal, Blackburn Rovers, Chelsea, Manchester City and Manchester United) have won the EPL since its formation in 1992 despite the fact that a total of 46 clubs have competed in the league during that time. This figure is significantly less than the amount of clubs that have won titles in the United States. With reference to the four main sports in the United States (National Football League (NFL), National Basketball Association (NBA), National Hockey League (NHL), and Major League Baseball (MLB)) there are clear differences. Since the formation of the EPL in England there have been 13 different teams that have won the NFL, 8 different NBA champions, 13 different NHL champions and 11 different MLB champions. This would support the argument that there is in actual fact a competitive imbalance in the EPL and figure 14 may also be able to offer superficial insights here. For example, for the clubs in the thesis to be classed as competitively balanced they should all be clustered around the middle of figure 14. Conversely, figure 14 suggests that performance is not evenly distributed and that there is a clear differentiation between the established and the less established EPL clubs. There are outliers throughout figure 14 and a substantial gap between the best performing club (Manchester United) and the worst performing club (Fulham). Furthermore, there is a substantial gap between the best performing club (Manchester United) and the next best performing club (Arsenal). There is an argument here that Manchester United has, since the formation of the EPL, established a form of a monopoly over the rest of the league, a scenario that Dobson and Goddard (2011) state is not beneficial for a football club or indeed the league as a whole. The EPL, however, does not appear to be hindered by this particular situation and it has established itself as a highly successful product, becoming the largest and most profitable league in world football during the last five years (Deloitte, 2014).

Historically, as outlined in the literature review, the North American model of ownership in professional team sports has been argued to be closer to profit maximisation with the European model more closely linked to utility maximisation (Andreff, 2011) although Markham and Teplitz (1981), Fort and Quirk (2004) and Zimbalist (2003) refute these claims. Markham and Teplitz (1981) argued that some owners seek 'playing success while remaining solvent' whilst others suggest that without detailed information on revenue functions it is hard to make comparisons about profit or win maximisation choices. Furthermore, Zimbalist (2003) found little convincing evidence distinguishing profit maximising behaviour from any other and concluded that 'owners maximise global long-term returns' and that these are very different from a team's reported operating profits. Zimbalist (2003) further argues that, in relation to American team sports, it is almost a certainty that different owners give different weights to the variety of arguments in their objective management functions. Nonetheless, it is possible to attempt to define where American clubs may be placed on figure 14 in relation to characteristics of profit and utility maximisation and the wider debate around competitive balance. The North American model operates under certain constraints which lend themselves to competitive balance and competition. These include the draft system (where the best players from the college system are assigned to the worst performing club from the previous season), revenue sharing and a salary cap. Subsequently, *ceteris paribus*, one would expect for American clubs to be clustered more closely around the middle of figure 14 if a similar time period was analysed.

6.10 Summary

This chapter has outlined the formation of the PAM for football clubs that has been derived from the pilot study stage and the amendments of the ExPAM. Following this, the chapter has presented headline findings from the full dataset and has discussed the average performance of English football clubs since the formation of the EPL in 1992. It is envisaged that this chapter has provided the thesis's most substantial contribution to knowledge. One of the main objectives of this thesis was to produce a set of measurement variables that incorporate both financial and sporting factors that have been determined through rigorous scientific processes and are indicative of the present day football industry. This objective also has inherent links to the overall aim of the thesis. There is evidence detailed within this chapter to support the argument that this objective has been achieved and that the thesis provides contribution to knowledge in this area. The objective is ultimately achieved through the formation and completion of the pilot study which utilised statistical techniques such as factor analysis to scientifically derive a model that can be tested empirically. Previous studies (e.g. Guzman and Morrow, 2007) had selected variables to then test through mathematical procedures such as DEA. However, this thesis has considered the relationship between variables in the first instance before they are applied to a dataset. Therefore, the data analysed within the PAM can be considered valid and reliable as there is a robustness to the selection of variables that has, to the author's knowledge, never previously been considered. Subsequently, this in turn has arguably contributed towards the literature field in this area. It is acknowledged that the formulation of the PAM for the football club is the strongest contribution to knowledge of this thesis.

Furthermore, elements of chapter 6 are grounded in both the conceptual framework of this thesis and the systematic literature review. The thesis countered the inconsistencies in accounting theory and practice by producing an initial assessment at the beginning of chapter 6 to test for financial homogeneity amongst the different financial accounts documented by football clubs (see Shibli and Wilkinson-Riddle, 1997). In addition to this, the way in which financial information is recorded and reported is directly linked to the arguments surrounding HCA and FVA discussed in chapter 2 (section 2.2, p.19). Presently, there is no clear convergence between HCA and FVA leading to the rise of mixed measurement bases as argued by Georgiou and Jack (2011). In light of this, FVA also has implications for the qualitative characteristics of accounting information such as validity, reliability and materiality (see section 2.3, p.25). Despite this, the test for financial homogeneity in the dataset and the subsequent scientific formation of the PAM has alleviated some of the concerns present in the literature. Whilst no study that considers financial data can ever be classed as completely reliable owing to the inconsistencies in financial reporting discussed in chapter 2, the techniques used in the formation of the model are robust enough for like-for-like comparisons within the English football industry to be offered in the results.

Additionally, chapter 6 has also outlined new suggestions for variables that could be used to measure sporting performance in professional football clubs. Originally, this complemented the literature review which stated that the choices of variables to be included for analysis have normally been selected at the authors' discretion (see Guzman and Morrow, 2007 among others). The thesis also selected some indicators that were made at the author's discretion but many of the indicators had been considered in previous research. The factor analysis procedure applied to these variables is the new contribution to knowledge in this area and is one of the main theoretical advancements made by the thesis. No previous studies (within the systematic literature review) have utilised statistical tests to determine the relationship between variables and none use such techniques to filter out variables that may correlate highly with each other. In doing this, chapter 6 has also added increased robustness to the validity and reliability of the project from a methodological perspective. There is a similar contribution to knowledge with reference to weighting factors applied. Previously, within the literature outlined in this thesis, the weighting factors assigned in research outputs were also at the discretion of the authors (see Romero Castro and Pineiro Chousa, 2006 among others). This thesis offers further insights into this area owing to the fact that the PAM was tested and re-tested to include a number of different weighting factors. It was subsequently concluded that altering the weighting factors made little difference to the OPS and the occurrence of testing and re-testing meant that the weighting factors could instead be deduced scientifically using efficiency or economy measures.

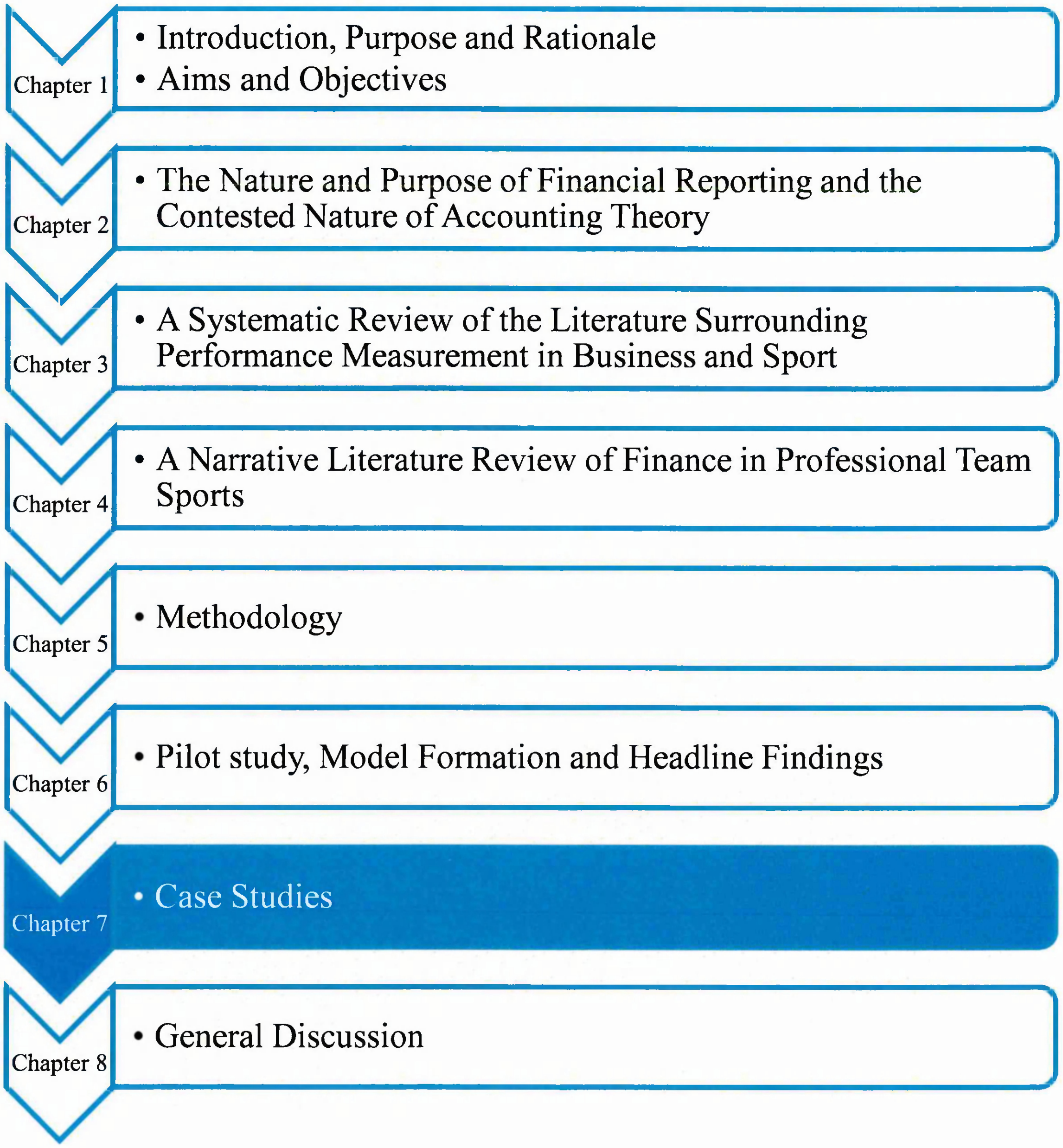
The above justification means that the results produced by the dataset are an indicative measure of the performance of English football clubs over the last two decades. The formation of the PAM has already contributed to objective number 1 of the thesis and the headline findings further contribute to achieving objective number 2. The results outline the holistic performance of EPL clubs since the league's formation in 1992 and have highlighted the best and worst performing clubs throughout the last 20 years. The findings, particularly the financial headlines outlined, complement the arguments outlined in the literature review that there has been an increasing disparity between rising revenues and rising costs in English professional football in recent years (see Buraimo, Simmons and Szymanksi, 2006; Hamil and Walters, 2010 among others).

The findings also lend themselves to the debate surrounding the concepts of profit and utility maximisation and, to the author's knowledge (based on the findings of chapter 4), is the first of its kind to consider these principles directly against an empirical dataset, using a statistically robust model to categorise clubs into one of four performance areas (see figure 14). Theoretically, a figure such as this can be repeated for any number of clubs over any length of time. Subsequently, the contribution to knowledge of the headline findings is not strictly limited to objective number 2 of this thesis. The model and its functions can be replicated across a number of other professional team sports that operate in a similar way to football. For example, the PAM could be applied to other English team sports, namely cricket, rugby union and rugby league in an attempt to determine whether clubs in these sports also display characteristics of profit or utility maximisation.

The analysis put forward in this chapter provides initial findings that are a useful starting point for further scientific investigation such as investigating the performance of one or more specific clubs in more detail or outlining a case study approach to analyse the data differently. Figure 14 highlights the best and worst performing clubs and the relationship between financial and sporting performance. The placing of clubs in figure 14 also lends itself to further discussion relating to other areas of the literature review. For example, the position of Chelsea in figure 14 and the displaying of utility maximising characteristics provoke further thoughts in relation to the models of club ownership in professional football clubs (see Walters and Hamil, 2010). Furthermore, the worst performing clubs in relation to figure 14 (Coventry City, Fulham and Sheffield Wednesday) have been categorised as clubs that have moved between leagues during the years analysed for this thesis. This has implications for the structure of the European model of professional team sports in comparison to the North American model where the leagues operate on a closed system with no promotion or relegation (see Andreff and Staudohaur, 2000 among others). Further scrutiny of the data was presented in figure 14 which highlighted indicative evidence that, for the majority of the clubs used in the thesis, overall performance, as measured using a mix of financial and sporting indicators, varies over time. A number of clubs showed relatively unchanged overall performance over time but many showed either declining or improving performance. It is these results that will now be investigated further in the proceeding chapter. Chapter 7 adopts a case study approach to data analysis which will allow for further discussion focusing on a more concentrated number of clubs. Such case studies will lend themselves to elements of the literature review and contribute to achieving the aims and objectives of the thesis outlined in section 1.3.

CHAPTER SEVEN

CASE STUDIES



Chapter 7 details a number of different case studies that have been selected to analyse the performance of clubs in the English football industry in more detail and with reference to a number of the key themes emerging from the literature review. The chapter puts forward four different case studies that incorporate comparably different clubs. The first case study focuses on foreign ownership in the EPL. The second analyses the effects of promotion and relegation before the third case study details the effect of European participation on clubs in the thesis. The concluding case study analyses the changing nature of English professional football and the EPL, providing a comparison between the first 10 years and the last 9 years studied. This chapter is related to objective number 4.

Objective 4: To analyse the performance of clubs in the English football industry against the arguments present in the literature through a number of case studies.

7.1 Case Study 1 - Foreign Ownership in the EPL

The theme of governance and ownership structure is present in the literature surrounding this thesis. Within the theoretical framework relating to the ownership structure in professional team sports, the concept of the foreign ownership model has been discussed more in recent years (see Walters and Hamil, 2010). Often, the debate around corporate governance and ownership structure has been linked to the apparent financial crisis in European football in recent years (see Buraimo, Simmons and Szymanski, 2006 for example). Parallel to this, both Andreff (2007) and Dietl and Franck (2007) outlined a new trend within the running of football clubs. Both authors cited the incentive to overinvest and shareholders behaving as non-profit seeking investors as an example of softening a club's budget restraint and therefore relaxing the financial discipline over managers. This is further compounded by the apparent 'arms race' among football clubs eager to enrol the most efficient players, which subsequently fuels wage inflation. Furthermore, the way in which these contracts are amortised in different ways based on the accounting framework (FRS 10) and papers by Morrow (1996) and Amir and Livne (2005) further highlights the problems that occur when attempting to analyse governance and ownership structure among professional football clubs.

The factors detailed above have contributed to the rise of foreign ownership in EPL clubs which has become increasingly prominent since 2004 (see table 9, p.108). Foreign owners of EPL clubs have historically been more wealthy than domestic investors and have appeared to be less concerned with return on investment which has led to clubs such as Chelsea and Manchester City having their transfer fees bankrolled by their owner, thus enabling them to enter the 'arms race' to sign the most efficient players often at a higher price than others may be prepared or able to pay. Indeed, at the time of writing, 10 out of the 21 clubs in the thesis are owned by foreign entities. Additionally, the majority shareholder at Arsenal is also foreign. Subsequently, a case study that investigates the difference in performance between foreign-owned and domestically owned clubs will now be put forward.

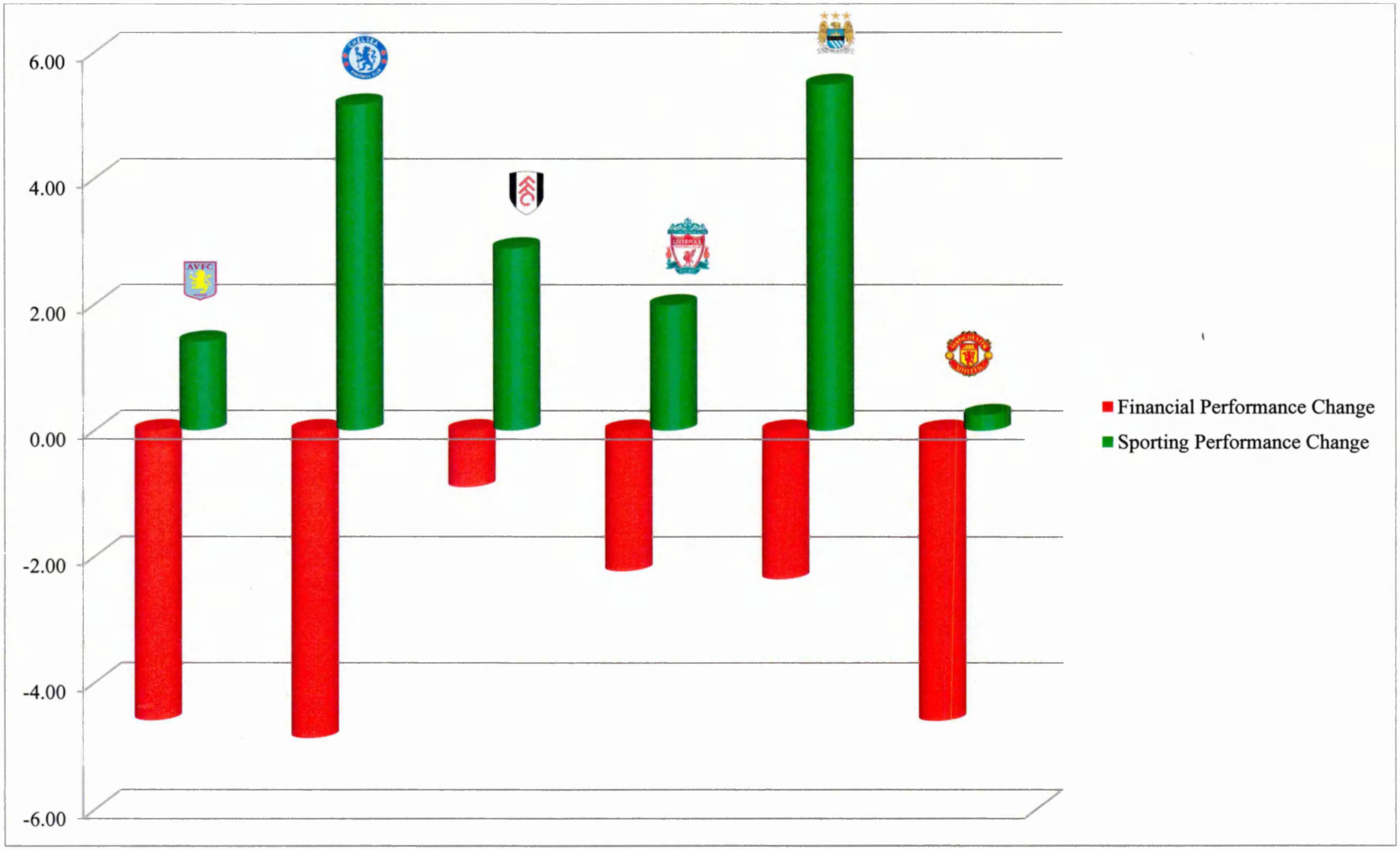
Previous research in this area found there to be very little evidence that one ownership structure can be considered better than the other with reference to a club’s performance (see Wilson, Plumley and Ramchandani, 2013). This case study builds on work put forward in previous literature by producing a longitudinal analysis that considers performance both before and after the takeovers. Owing to the process undertaken to construct the PAM, this case study provides new insights into the effect of foreign ownership on EPL clubs as the model is an original way to measure performance.

The foreign-owned clubs chosen for this case study reflect the clubs outlined in table 9 (p.108) in the literature review by Walters and Hamil (2010). Garcia-del-Barrio and Szymanski (2009) have also noted the rise of foreign investors in English football, most notably the amount of sport franchise owners from North America who have gained control of EPL clubs. Subsequently, this case study also provides progression in the area of profit and utility maximisation and attempts to establish whether the North American owners are changing the dynamics of competition in European football. Table 29 below restates these clubs, their respective takeover dates and their average performance scores pre and post takeover and figure 19 charts the absolute difference between each club's financial and sporting score post takeover.

Table 29 - Foreign-owned clubs and their performance scores pre and post takeover

		Pre-Takeover (Average Scores)		Post-Takeover (Average Scores)		Absolute Differences (Pre - Post Scores)	
Clubs	Takeover Date	Finance Score	Sporting Score	Finance Score	Sporting Score	Finance	Sporting
Aston Villa	Aug 2006	7.43	12.48	12.02	11.07	-4.59	1.41
Chelsea	July 2003	9.77	8.09	14.64	2.92	-4.87	5.17
Fulham	May 1997	16.34	14.20	17.24	11.31	-0.90	2.89
Liverpool	Feb 2007	7.72	6.82	9.95	4.83	-2.23	1.99
Manchester City	Sept 2008	12.06	12.38	14.42	6.89	-2.36	5.49
Manchester United	May 2005	1.19	3.03	5.79	2.78	-4.60	0.25

Figure 19 - Absolute Differences between the Average Financial and Sporting Scores of Foreign-Owned Clubs Post-Takeover



The data in figure 19 depicts a clear trend in the performance of the 6 selected clubs post their respective takeover dates. The decision was taken to omit Sunderland and Blackburn Rovers from this case study owing to the fact that their takeover date was in 2009 and 2010 respectively meaning that their average score post-takeover would have only included a maximum of two years' worth of data compared to the seventeen previous years that they were not under foreign ownership. Subsequently, it was decided that this would not give a clear indication of how foreign ownership has affected the club at this time.

Figure 19 highlights that financial performance has deteriorated, among all clubs, in the years following the takeover. Contrastingly, during the same period, sporting performance has improved. Notably, sporting performance has improved the most at Chelsea and Manchester City, two clubs that have shown signs of utility maximisation in recent years. The decline in financial performance at these two clubs has been offset by improved sporting performance and both clubs have secured a number of trophies in the years after their respective takeover. However, Chelsea and Manchester City at the present time are not displaying principles of prudent financial management outlined in the accounting framework and the going concern assumption (see Louwers, 1998; Martin, 2000). The two clubs, at financial year end 2011 had net debts of £816m and £43m respectively. Furthermore, Manchester City's wages to turnover ratio stood at 114%. With reference to the accounting framework, these two clubs would find it difficult to fulfil the going concern principle based on these figures. Furthermore, the concept of break-even and the regulations enforced by UEFA through FFP will have a significant effect on the respective business models of these clubs in the coming years. The scores returned by Chelsea and Manchester City reflect the motives of foreign owners described by Walters and Hamil (2010) who outline that EPL are now considered as 'trophy assets' for foreign businessmen owing to the commercial profile of the clubs that play in the EPL coupled with the opportunities for global expansion to maximise brand potential.

Arguably, the most coveted 'trophy asset' in the EPL would be Manchester United owing to their illustrious history and their dominance of English football in the EPL era. Indeed, Manchester United were categorised as the best performing club in relation to the dataset used by this thesis in the preceding chapter. With reference to case study 1, Manchester United’s sporting performance improved slightly, increasing by 0.25 in absolute terms. However, this figure must be considered within the context of how successful the club has been on the pitch since the formation of the EPL. The club's average sporting index score pre-takeover was 3.08 which is considerably better than the other five clubs outlined in this case study and not too far away from the perfect score of 1 with respect to the PAM. Post-takeover, this sporting score improved slightly to 2.78 - again the best score out of all 6 foreign-owned clubs. This is a positive result for the club as it shows that they have not lost their ability to compete and be successful on the pitch in light of the challenges put forward by emerging contenders such as Chelsea and Manchester City in recent seasons.

However, Manchester United's financial performance declined by 4.6 points in absolute terms post-takeover. This decline in financial performance can be directly attributed to the takeover by the Glazer family who purchased the club through the method of debt financing. Subsequently, the club has been burdened with large amounts of debt and high interest repayments (net debt totalled £308m in 2011). As a result, Manchester United's average financial score has fallen from a near perfect 1.19 pre-takeover to 5.79 post-takeover. The commercial power of Manchester United and its global profile should mean that financial trouble is unlikely as long as the debt remains serviceable. Across Asia alone Manchester United can claim in excess of 50 million fans (Fry, 2007) and the club has recently secured sponsorship deals with American car dealer Chevrolet and floated on the New York stock exchange in 2012. This has recently led to the club reporting record revenues of £363m for the 12 months up to June 2013 (BBC, 2013). However, the way in which the Glazer family acquired the club has further reaching implications for the wider football industry. If debt financing was used to acquire a club that was then unable to service the debt, then there is a possibility that the club could be forced into administration. This scenario has occurred at Portsmouth (the first EPL club to enter administration in 2010) in recent seasons where the club has fallen from the EPL to the fourth (and lowest) tier of English league football at the time of writing.

The other three clubs in this case study (Aston Villa, Fulham and Liverpool) have also recorded improved sporting performance post-takeover alongside deteriorating financial performance. Again, it is important to consider these figures in the context of the individual clubs. Fulham, for example, have been under foreign ownership the longest (since 1997) but the club's financial performance was the worst in relation to other clubs before the takeover as well. The club undoubtedly overspent in an attempt to reach the EPL and, despite having achieved this in 2001, the club is still heavily reliant on their main benefactor. The club does not currently have the resources to compete with the more established clubs in the EPL and its financial performance has been consistently poor throughout all years studied. Fulham did reach the Europa League final in 2010 although this was not enough to alter its poor performance over a sustained period of time in relation to the dataset considered for this thesis. Furthermore, Fulham was relegated from the EPL at the end of the 2013/14 season and this will also lead to a depletion of financial resources in the short term. It is important here to note the argument put forward by Senaux (2008) that stakeholder objectives will play a role in how a club is run. Whilst the paper by Senaux (2008) focused on French football clubs, the same argument is valid among English clubs and different stakeholder groups will have their own objectives which are often sporting and financial, although political values cannot be ruled out. This will in turn have an impact on the financial and sporting performance of the club.

Within the literature it has been argued that the established position surrounding profit and utility maximisation in North American and European team sports is being challenged. Historically, the European open market model has been more closely aligned to utility maximisation or win maximisation operating under a soft budget constraint (Andreff, 2011). However, Garcia-del-Barrio and Szymanski (2009) make reference to the number of sports franchise owners from North America who have recently acquired control of EPL clubs and pose the question as to whether or not profit maximisers could successfully invade a population of win maximisers. To analyse this argument, figure 20 charts the relationship between financial and sporting performance for the 6 foreign-owned clubs pre and post takeover to establish whether the influx of foreign investment has led to a shift towards profit maximisation.

Figure 20 - The Relationship between Financial and Sporting Performance for Foreign-Owned Clubs Pre and Post Takeover

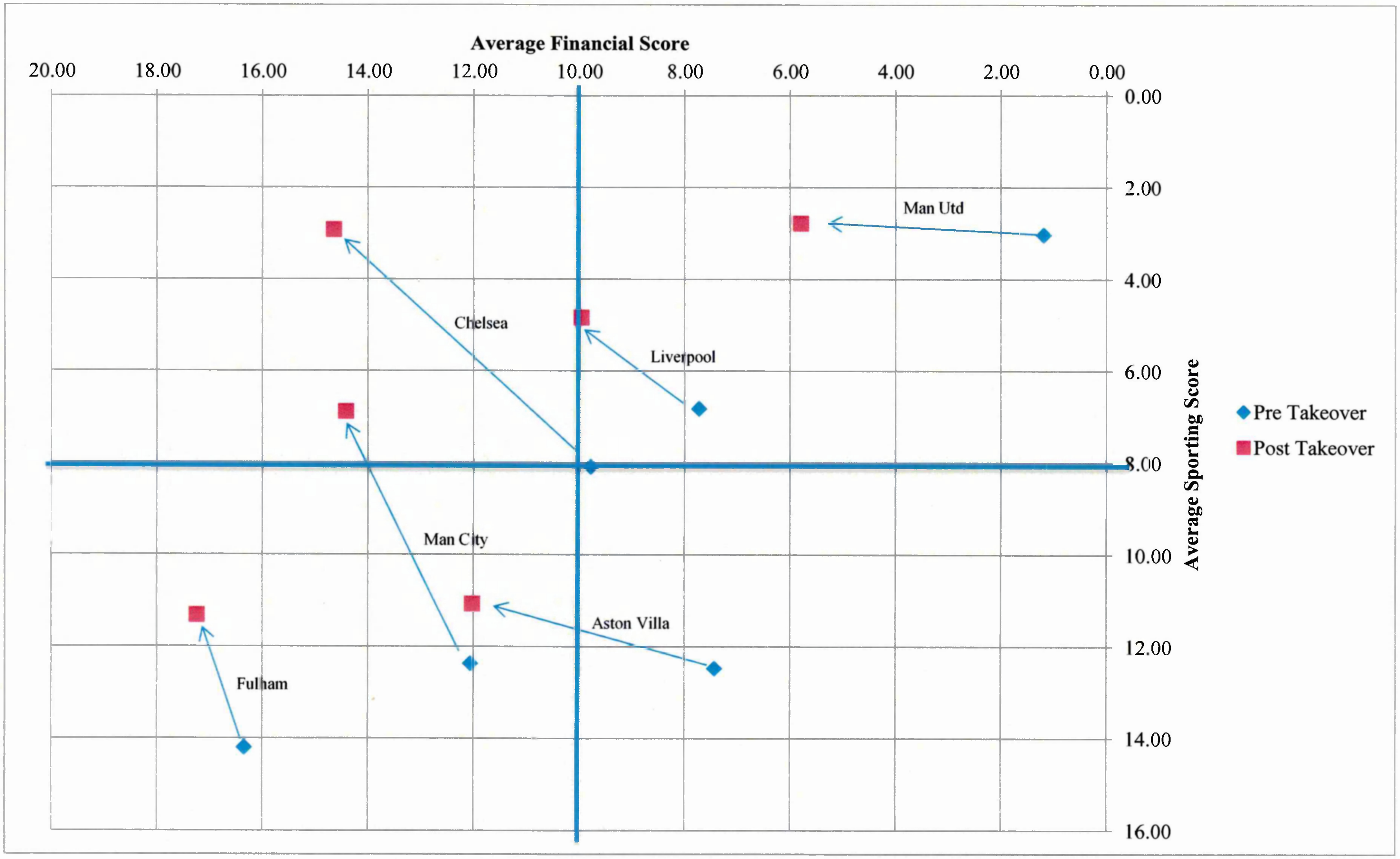


Figure 20 conclusively rejects the argument put forward by Garcia-del-Barrio and Szymanski (2009). For their argument to prove correct, clubs would be moving towards the direction of the bottom right quadrant of figure 20, depicting the characteristics of clubs concerned more with profit maximisation. However, the general trend appears to be towards the opposite (top left) quadrant. This quadrant depicts characteristics of utility maximisation whereby sporting performance increases and there is less concern about the financial performance of the organisation. All 6 clubs under foreign ownership move towards utility maximising behaviour post takeover. The steepest inclines again occur at Chelsea and Manchester City which reflects the absolute differences in scores outlined in figure 19. Despite the argument outlined by Garcia-del-Barrio and Szymanski (2009) there is a counter argument to suggest that profit maximisation is not always the motive of American franchises owners either. Rather, some owners seek 'good enough' performance - analogous to utility maximisation subject to a minimum profit constraint, or as it is often referred to in English football, 'playing success while remaining solvent' (Markham and Teplitz, 1981). The most common formalisation of this approach is to assume win maximisation subject to a break-even constraint.

The subjectivity surrounding the terms profit and utility maximisation and what they actually mean makes it difficult to categorise clubs officially into one bracket or the other. However, the data is clearly showing that for these 6 clubs, post takeover, sporting performance has improved whilst financial performance has declined. It must also be noted that with reference to the 6 clubs in figure 20, at financial year end 2011, none would satisfy the break-even requirement. This is a concept that UEFA have now transformed into a regulation with regards to FFP and it is also something that the EPL plan to implement 'in house' with their own financial fair play regulations specific to EPL clubs. There is an argument, however, that FFP will actually achieve very little, other than to further widen the gap between the established clubs in the EPL and the rest (see section 4.7, p.108).

Whilst UEFA state that they are not attempting to impose a limit on owner investment and that the emphasis is on seeking to limit a club's losses over time it is still reasonable to suggest that the ownership models employed by Chelsea and Manchester City in recent seasons will not be seen on the same scale again. Clubs that wish to compete in UEFA's European competitions will have to comply with the break-even principle with owner investment to be directed more towards spending on facilities and activities for the longer term benefit of football (Deloitte, 2012). Clubs such as Chelsea and Manchester City (which have posted losses of £150m and £52m for the last accounts available in 2013) would be two examples of clubs that need to reinvent their respective business models to comply with FFP to compete in UEFA competition. However, it is more pertinent to analyse the English football industry and the EPL in relation to the new financial regulations that the EPL themselves are implementing among all clubs. Researchers have commented on how less stringent the EPL regulations are in comparison with UEFA FFP (Conn, 2013). UEFA's FFP regulations restrict clubs in European competitions to making total losses of €45m in 2012-2014, while the EPL's limit, agreed after nine months of discussion, is £105m over three years. There is also the limit on player wages to consider although this is a little more confusing when compared to UEFA's FFP limit of wages that are no more than 70% of turnover. In the EPL regulations, clubs are permitted to increase their respective wage bills by £4m in 2013, then £8m the following season and £12m the next, out of the EPL's television income. However, clubs are permitted to increase wages through commercial income and ticket income alongside of this (Conn, 2013).

As previously stated in chapter 4 (section 4.8, p.111), it appears that the EPL regulations can be considered somewhat of a compromise between clubs such as Manchester United, Arsenal, Liverpool and Tottenham Hotspur, who would have preferred a strict implementation of UEFA's €45m limit, and other clubs, including Manchester City, who would have preferred no restrictions at all (Conn, 2013). The compromise also means that the EPL is open to the benefactor model of club ownership outlined by Beech (2010), albeit that an owner would be limited to £105m over three years, plus investment in youth training and infrastructure.

There is a further argument, that neither set of regulations will result in a pronounced change in relation to both the Champions League and the EPL. Clubs that regularly compete in Europe will have to comply with UEFA regulations although they will still continue to be the leading clubs in terms of revenue generation owing to the substantial income available through success in UEFA's Champions League competition. Furthermore, with the EPL looking to protect the financial integrity of clubs and limiting the potential for more takeovers like the Chelsea and Manchester City examples, then there is certainly an argument that the regulations will, in actual fact, only further to widen the gap between the top six clubs in the EPL (i.e. those in European competitions) and the rest. This can be further analysed in relation to figure

20 on p.217. For example, were there to be no limits imposed at all, a club such as Manchester City would move towards the far left corner of the top left quadrant that defines utility maximisation. This would mean that their sporting performance would increase significantly whilst their financial performance would be substantially worse than others, owing to their investment in greater playing talent and subsequent increases in losses. However, in light of the new regulations set out by UEFA and the EPL, it is more likely that clubs will move up or down in figure 20 in more of a straight line during the next three years, signalling financial scores that are closer together owing to the break-even principle.

Despite the criticisms that have been directed at the foreign ownership model in recent years (see for example Wilson, Plumley and Ramchandani, 2013) it can also be argued that it is had a positive impact on the English game. The influx of foreign owners has arguably led to increased competition particularly at the top end of the EPL with a more varied mix of clubs winning the title during the past 10 years. Indeed, across the six clubs studied in this case study, sporting performance improved at all of the clubs. Subsequently, to maintain comparability in the case study, it is important to consider the performance of clubs who have not followed the foreign ownership model approach. Of the 21 clubs selected for the study, there are only 5 clubs which have not been subject to a takeover from foreign investors during the period of the study, (Bolton Wanderers, Everton, Middlesbrough, Newcastle United and Tottenham Hotspur). Traditionally, these clubs have been owned by domestic businessmen who also have an emotional interest in the club. Similarly, aside from Tottenham Hotspur, all of these clubs can be classed as performing below average over the nineteen seasons studied. In relation to figure 14 (p.191), Bolton Wanderers, Everton and Middlesbrough are all placed in the bottom left quadrant, recording neither good financial or sporting performance in relation to the rest of clubs. Analytically, it is reasonable to suggest that this can be attributed to the fact that domestic investors, traditionally, do not have the capacity to match foreign investors in terms of personal wealth. Subsequently, they cannot compete in the transfer market and fall behind the other clubs in terms of playing talent and revenue generation.

There is a further ownership model that can also be considered in this debate that links back to the models outlined in the literature (see Walters and Hamil, 2010). The stock market model of ownership became increasingly popular in the early to mid-1990s. However, since the turn of the century, the majority of clubs have de-listed with many experiencing a significant drop in share price due to poor returns on investment as a result of an inherent difficulty for clubs to generate profits. In recent years, Arsenal and Tottenham Hotspur have been the only two English clubs listed on the stock market although Tottenham Hotspur have also since de-listed in 2012 in an attempt to raise funds for a new stadium. Interestingly, both Arsenal and Tottenham Hotspur feature in the top three clubs in relation to figure 14 (p.191) finishing behind only Manchester United in relation to financial and sporting performance on average. Superficially, this supports the argument put forward by Gerrard (2005) that those teams in the EPL listed on the London Stock Exchange had lower wage costs, higher revenues, and better operating margins, *ceteris paribus*. This argument is further supported by Wilson, Plumley and Ramchandani (2013) who found that general financial performance of professional football clubs in England was better amongst clubs that have floated on the stock market in the past. The fact that Arsenal and Tottenham Hotspur have recorded better financial performance and have both floated on the stock market makes sense when the principles of accounting from chapter 2 (p.11) are considered. Generally, all businesses exist with the intention of making profit for their owners and other stakeholders. When companies are listed on the stock exchange, there is more pressure on the organisation to deliver a return for its investors. As such, organisations that float on the stock market will be more concerned with financial performance and will often be more prudent in their business decisions as a result.

In relation to the study by Wilson, Plumley and Ramchandani (2013) there is a further caveat. The authors of this paper also found ownership structure, generally, to have little bearing on financial performance, concluding that no one ownership structure can be considered better than the other in relation to the clubs studied. This case study into foreign ownership in EPL clubs counters this argument to some extent, concluding a decline in financial performance of the clubs involved post-takeover. However, sporting performance post-takeover improved meaning that, superficially, the foreign ownership phenomenon that has penetrated the EPL in recent years is most closely related, for the clubs involved in this control group, to the concept of utility maximisation. This is an interesting finding in light of the decision usefulness of financial information (see section 2.4, p.29) which states that present and potential investors need information about the reporting entity's financial performance and financial position that is useful to them in evaluating the entity's ability to generate cash (e.g. Benston, 2008; Gassen and Schwedler, 2010). Based on the results of this case study, it appears that the majority of foreign owners do not consider this when investing in professional football clubs which once again highlights how diverse an industry professional football actually is. This is reflective of the discussion surrounding the 'peculiar economics' of professional team sports in chapter 3 (section 3.3.3, p.75). The structure of the European model for professional team sports originally allowed for the break-away of clubs to form the EPL in 1992. Following this, the move from public owned to private owned clubs with little restriction on geographical background has led to an influx of foreign owners and previous lax financial regulations allowed such owners to invest heavily in the playing staff without having to be concerned about any losses incurred.

In light of this, case study 1 offers further insights into the impact of the foreign investment model of ownership at English professional football clubs. It has been noted in previous literature that the stock market model of ownership produced better financial performance (see Gerrard, 2005; Wilson, Plumley and Ramchandani, 2013). The latter paper also purported that ownership structure, generally, has little bearing on financial performance. However, case study 1 notably contradicts the findings of Wilson, Plumley and Ramchandani (2013) and subsequently adds progression in the literature surrounding governance and ownership structure in professional team sports. This thesis finds that foreign ownership has had a detrimental effect on financial performance but has, concurrently, improved sporting performance.

Case study 1 also has implications for the debate around profit and utility maximisation. The case study rejects the argument put forward by Garcia-del-Barrio and Szymanski (2009) that questions whether or not American investors (often quoted as following the profit maximisation approach) could successfully invade a population historically linked to win maximisation. Contrastingly, the case study suggests that the influx of foreign ownership at EPL clubs in recent seasons depicts a trend towards utility maximisation. It must also be noted that this complements previous literature that suggests that European football, historically, has been closely aligned to win maximisation (see Andreff, 2011 among others).

7.2 Case Study 2 - Promotion and Relegation in English Professional Football

As previously stated in the preceding literature review, there has been debate in recent years to introduce the principles of American professional team sports into the European model in an attempt to obtain more competitive balance. Vrooman (2007) suggested that the introduction of a breakaway European Super League (ESL) is the open-market equilibrium solution (see also Hoehn and Szymanski, 1999; Kesenne, 2007; Szymanski, 2007) owing to the fact that zero-profit maximising and soft-budget constraints have driven European football clubs to the brink of insolvency and polarized competition throughout Europe (Vrooman, 2007). It is argued that the ESL is an inevitable consequence of a unified European open market. However, Carmichael, McHale and Thomas (2010) argue that an ESL would not work in practice as it would arguably require new regulations and constraints regarding matters such as salary caps, squad sizes, transfer markets and player mobility, which Europe's major leagues have either relinquished or rejected. An interesting caveat to this is that Ross and Szymanski (2002, 2005) have considered the reverse of this, discussing the introduction of European-style promotion and relegation into American sports.

To further explore these arguments in the literature, case study 2 will examine how promotion and relegation, two features of the European model, affects football clubs in terms of their performance within the PAM. This case study will focus on four clubs who have been relegated from and promoted to the EPL for the years studied. Academics and commentators have noted that there appears to be a financial gap between the elite leagues in Europe and the leagues directly below them (see Deloitte, 2013 for example). This has been attributed to the increased revenues available to clubs that compete in the elite leagues from sources such as match day receipts, broadcasting income and commercial income which Beech (2010) describes as the three main sources of revenue for professional football clubs. Indeed, Noll (2007) states that television has vastly increased the revenues of the most sports. In order to explore these claims, case study 2 analyses the differences between four clubs; two of which were relegated from the EPL around the turn of the millennium (2000) and are yet to return and two that were promoted to the EPL around the same period and have since established themselves within that league. In a dataset of 21 clubs this case study accounts for around 20% of all clubs and these four clubs show similar characteristics which are applicable for benchmarking. For example, alongside the consistency in the timings of their respective promotions and relegations, both promoted clubs (Bolton Wanderers and Fulham) have similar stadium capacities, as do the two relegated clubs (Sheffield Wednesday and Coventry). They also have similar average attendances as a result and were competing in the same leagues for the period under review. This means that from a benchmarking perspective these clubs fit the notion of comparing organisations of similar size and within the same industry. As such, case study 2 can offer insights into the effects that promotion and relegation has on English football clubs by analysing these four clubs.

The clubs chosen for this case study are Bolton Wanderers, Fulham, Coventry City and Sheffield Wednesday. The reasons behind choosing these four clubs relates to the years of their respective promotion and relegation. Both Bolton Wanderers and Fulham were promoted to the EPL in 2001, the same season in which Coventry City were relegated, whilst Sheffield Wednesday were relegated in the previous year (2000). In addition to this, both Bolton Wanderers and Fulham (aside from Bolton in 1997/98) had never previously competed in the EPL and have since completed exclusively in the EPL up until the end of the 2011 season. The inverse is also true for the other two clubs in this case study. Both Coventry City and Sheffield Wednesday had competed exclusively in the EPL since its inception in 1992 and, following their subsequent relegations in 2001 and 2000 respectively, neither club has since returned to the EPL. Therefore, these clubs are a rational selection for case study 2 as their performance can be benchmarked against a central point in time to highlight the difference in performance between two clubs promoted to the EPL and two clubs relegated from it. Certain researchers have argued that a move towards a European Super League (ESL) in the European model of professional team sports would be beneficial (e.g. Hoehn and Szymanski, 1999; Kesenne, 2007; Szymanski, 2007; Vrooman, 2007). This suggestion is explored further in case study 2 by focusing on the effect that relegation and promotion has on English football clubs. If an ESL were to be introduced then relegation and promotion to an elite league would no longer be a possibility for a number of clubs. Subsequently, relegation and promotion are reviewed in case study 2 in terms of the impact that it has on club performance. It is acknowledged that, owing to the sporting indicators in the model, that the EPL clubs should return better performance on the pitch. Nevertheless, the results were expected to show significant differences in relation to financial performance.

In addition to the arguments offered for bringing the European model of professional team sports closer to the American model, the importance of broadcasting revenue and distribution is also relevant to a case study regarding promotion and relegation. Indeed, the impact of broadcasting is arguably the most important development in driving revenues during the last two decades and major football broadcasting rights contracts have escalated substantially in recent years. Broadcasting revenue accounted for 50% of EPL clubs' total revenue in 2011/12 (Deloitte, 2013). The latest EPL television deal signed in 2012, which runs until 2015, is worth a record £3 billion, a figure that equates to an estimated extra £14m for each EPL club in relation to the previous deal (Gibson, 2012). Herein lies the importance for clubs to retain EPL status year after year. The financial rewards from broadcasting are significantly lower in the football league below the EPL where the latest domestic broadcasting deal (2012/13) has been reduced to a collective £195m, putting increased pressure on clubs to assess their cost bases so that they can adapt to the potentially difficult times ahead (Deloitte, 2012). The continuation of increased broadcasting revenue could further expand the gap between the EPL and the rest of the Football League, particularly with the implementation of the Football League's own FFP regulations. Indeed, the owners of the 24 current Championship clubs have recently warned the EPL that it risks permanently damaging the 'integrity of the Football League' by proposing an increase in parachute money for clubs relegated from the EPL but only a modest rise in 'solidarity payments' to other clubs. Chairmen believe that their recently introduced FFP rules (see section 4.8, p.111) will become 'completely unworkable' if the scheme goes ahead as planned (Gibson, 2013). Considering the changes that have been evidenced above over the last two decades, it is reasonable to suggest that the results of this case study will portray contrasting stories, with Sheffield Wednesday and Coventry City witnessing worsening performance post relegation and Bolton Wanderers and Fulham witnessing improving performance post promotion. Figure 21 firstly charts the changes in revenue at the four clubs over the 19 seasons analysed.

Figure 21 - Changes in Revenue at Bolton Wanderers, Coventry City, Fulham and Sheffield Wednesday (1993-2011)

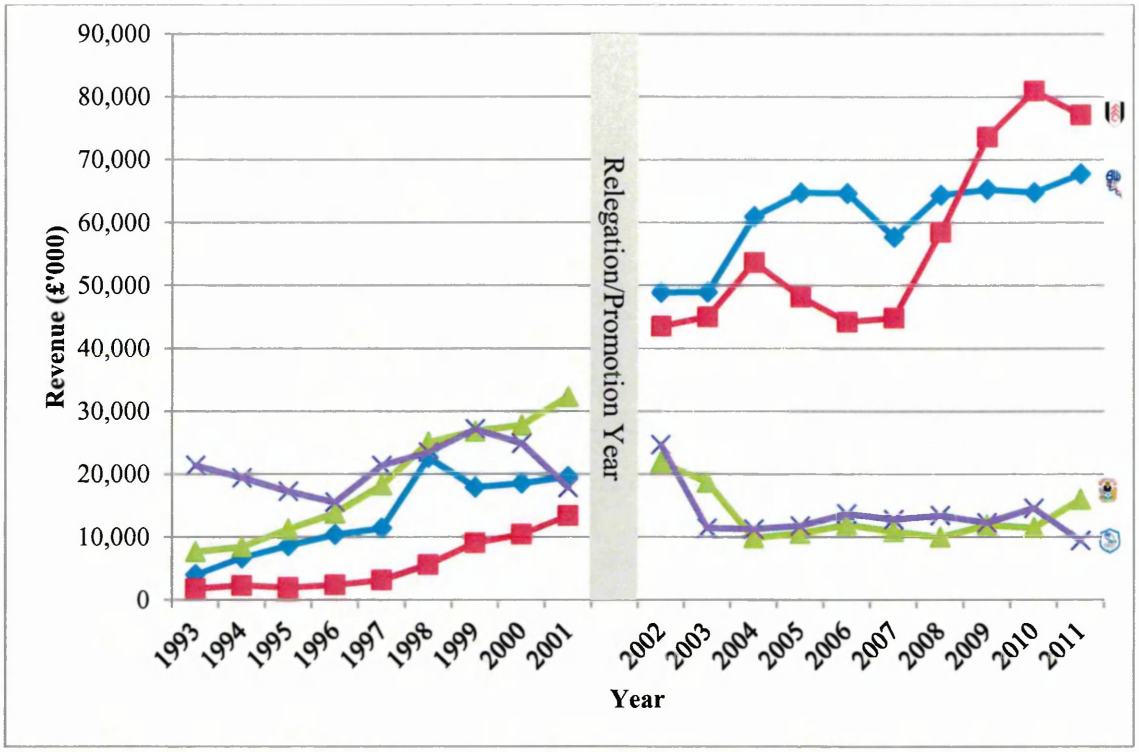


Figure 21 clearly depicts a contrasting trend in revenues among the four clubs analysed for this case study. The gap in the graph is used to define the point in time where the separation between relegation and promotion occurred for the four clubs as detailed previously in the rationale for this case study. The graph also takes into account changes in inflation throughout the time period studied. All values have been inflated to relate to what they would actually be worth in value in 2011. For example, the actual revenue of Sheffield Wednesday in 1993 was £12.8m. £1 of goods and services in 1993 is equal to £1.67 at the end of the dataset (2011) so multiplying the actual figure in 1993 by 1.67 gives a real-time value of £21.3m. This has been done for each year following 1993 up until 2010 as the inflation factor moves closer to 1.

At each club, pre 2001, there is a general increasing trend in revenues. However, post 2001 there is a distinct contrast with revenues continuing to rise at the two EPL clubs (Bolton Wanderers and Fulham) whilst revenues decrease and plateau at the two relegated clubs (Coventry and Sheffield Wednesday). Furthermore, there is a greater disparity in the absolute figures at the four clubs post 2001. In the two years following relegation, after the impact of the parachute payments had subsided, neither Coventry nor Sheffield Wednesday recorded a turnover figure in excess of £15m even when inflation is factored in. By comparison, revenue figures at Bolton and Fulham rose as high as £80m in Fulham's case for 2010 following stability in the EPL. However, when inflation is factored in, Fulham's revenue actually decreases by almost £4m in real terms in 2011. Despite the UK experiencing its strongest period of growth in five years inflation levels are currently fluctuating around the 2% mark following the most prolonged economic downturn on record (Bank of England, 2013). This in part explains the £4m real-term deficit at Fulham as the inflation rate has declined since the turn of the millennium (when it was as low as 0.5% in May 2000) compared to the previous decade when it was as high as 8.5% in April 1991 (Trading Economics, no date).

With reference to the figures for 2011 broadcasting revenue accounted for 63% of turnover at Bolton Wanderers and 61% of turnover at Fulham. Furthermore, if broadcasting revenue was to be excluded from the equation, revenue at Bolton Wanderers and Fulham in 2011 would have been significantly lower, totalling £25m and £30m respectively accounting for inflation. The breakdown of revenue for Coventry City and Sheffield Wednesday in 2011 was unavailable but it is reasonable to suggest that the proportion of revenue received from broadcasting would be significantly lower than their EPL counterparts. In addition to this, both Bolton Wanderers and Fulham have since been relegated from the EPL in 2012 and 2014 respectively. Subsequently, it is envisaged that their revenue will decrease in the future unless an immediate return to the EPL is secured.

That fact that at some clubs (including Bolton Wanderers and Fulham) broadcasting revenues account for roughly two thirds of total revenue and the industry average is 50% of total revenue (Deloitte, 2013) provides further evidence that broadcasting revenue plays a pivotal role in the financial performance of EPL clubs. Primarily, this is due to the way in which EPL broadcasting rights are distributed among clubs. As stated in chapter 4 (section 4.5.2, p.103) and the headline findings in chapter 6 (section 6.9, p.181), the EPL model is considerably fairer than other European leagues although it is also a model that benefits the EPL clubs exclusively. Fifty per cent is divided equally, twenty five per cent is distributed as merit payments and twenty five per cent is on the basis of the number of appearances on television (Vrooman 2007). This system of broadcasting distribution in the EPL explains why the broadcasting income earned by Bolton Wanderers and Fulham accounts for such a high percentage of turnover. These two clubs have been less successful on the pitch compared to other clubs in the league (Bolton Wanderer's mean finishing position since promotion in 2001 is 11.9 whilst Fulham's is slightly lower at 12.1). However, the fact that fifty per cent of broadcasting revenue is shared equally among EPL clubs means that clubs such as Bolton Wanderers and Fulham still earn a substantial amount of revenue from broadcasting. These clubs would not earn as much money from broadcasting in Spain, for example, where Barcelona and Real Madrid cartelise the market. The commercial profile of a club will also impact on its revenue although it is difficult to extract the exact figure earned from commercial activities owing to the fact that they can vary from club to club. The industry average states that 27% of EPL club revenue was obtained through commercial activities in 2011/12 (Deloitte, 2013) although the percentages for each club are often unavailable in the financial figures. As such, like-for-like comparisons of commercial income are often impossible to compute.

Despite the exponential rises in revenue over the last two decades it is also apparent that there has been an increasing inconsistency between these rises in revenues and decreasing profitability linked to rising costs during the same time period. This continues to be a problem across the majority of European football leagues and has been identified by many different authors in many different countries (see Andreff, 2007; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007 among others). A number of these studies highlighted the debt problems at individual clubs in recent years and conclude that there was an increasing element of financial crisis spreading across the European game. Evidently, in light of the introduction of UEFA FFP, such a financial crisis still exists in the present day football industry. It is envisaged that UEFA FFP will help alleviate this problem in future years although it is too early to analyse the effect of these regulations at this point in time. However, with reference to the four clubs in this case study, debt levels can be analysed across a longitudinal time period in an attempt to confirm or reject the arguments offered in academic literature. Prior to the introduction of FFP, Buraimo, Simmons and Szymanski (2006) argued that the English game had a significant problem with debt and that further adjustments needed to be made to the financial position of English football clubs, namely, debt rescheduling, the write-off of loans and sales of land, including stadia or training grounds, to third parties (Buraimo, Simmons and Szymanski, 2006). Interestingly, Sheffield Wednesday had to negotiate terms such as this when the club was faced with a winding up order in 2010. The club was sold to Milan Mandaric for £1 and Mandaric immediately settled the club's debt with a £7m payment to the Co-operative bank, which was owed £23m. Furthermore, the club's loan note holders agreed to receive significantly reduced payments than the amount that they were actually owed, based on the premise that they will be repaid in full should Sheffield Wednesday ever make a return to the EPL (ESPN, 2010). The example of Sheffield Wednesday is not an isolated case in English football and similar problems have occurred at high profile clubs in recent years including Leeds United, Portsmouth and Crystal Palace. In light of this, the level of debt at the four clubs analysed for this case study is presented in figure 22 below.

Figure 22 - Changes in Net Funds/(Debt) at Bolton Wanderers, Coventry City, Fulham and Sheffield Wednesday (1993-2011)

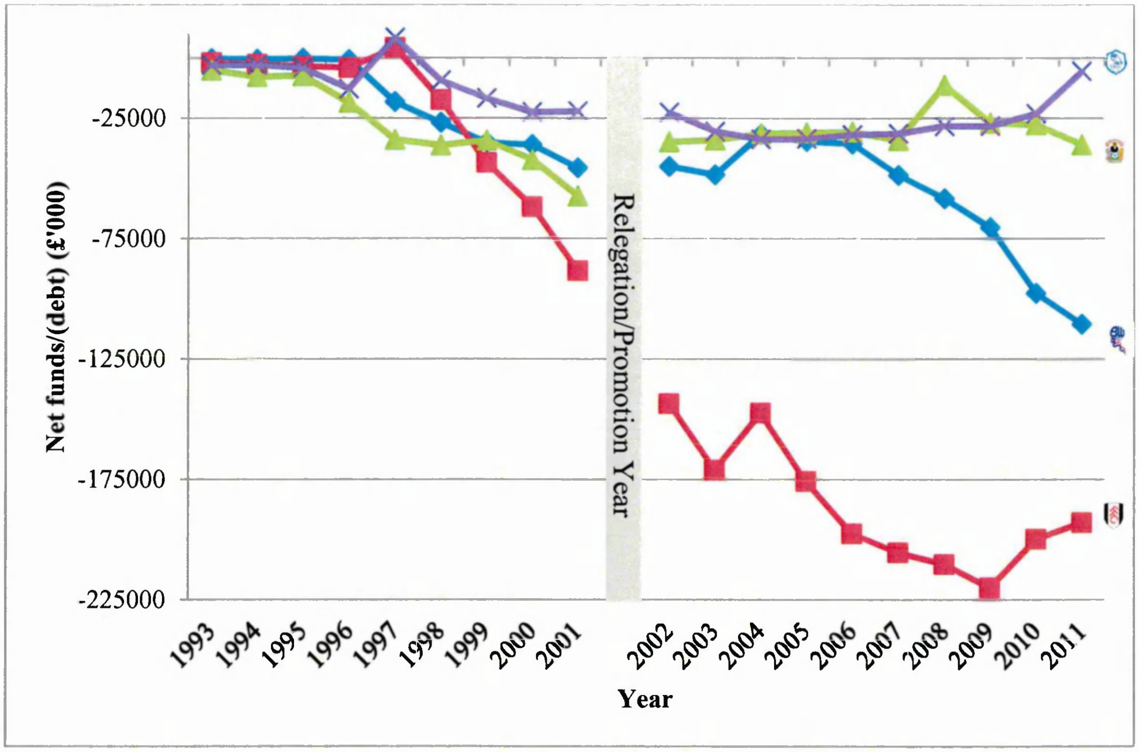
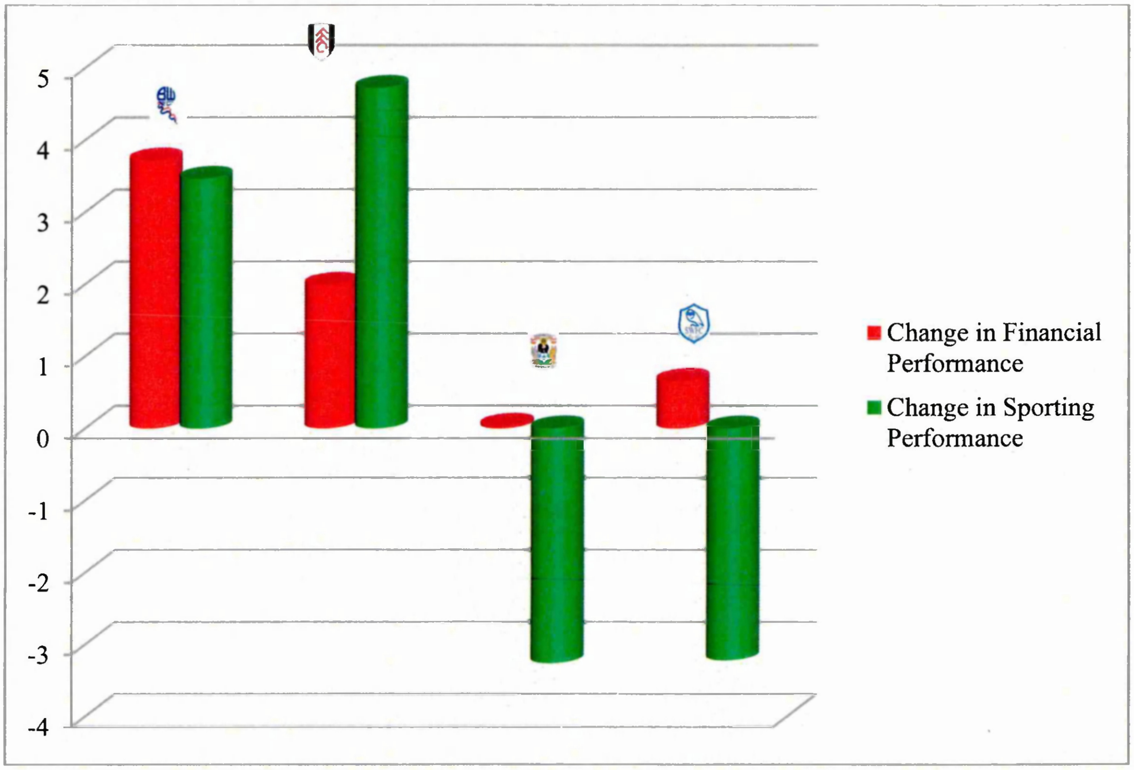


Figure 22 displays the exact inverse of the changes in revenue depicted in figure 21. Once again, inflation has been factored in for all years as per the previous figure charting revenues (figure 21). Whilst both Bolton Wanderers and Fulham have recorded rising revenues in recent years, the debt at each club has also risen substantially. Bolton Wanderers have never recorded a positive net funds figure for the last 19 years and Fulham did so only once, posting a net funds figure of £4.3m (inflated value) in 1997. At the end of 2011 Fulham's net debt stood at almost £193m. However, figure 22 also shows that Fulham have decreased their debt over the last two years when inflation is factored in. It is important that the club continue to reduce their debt in the coming years in light of their recent relegation to the Championship where they will operate under different financial regulations (see section 4.8, p.111).

The situation at Bolton Wanderers was little better with the club recording net debt of £110.6m in 2011. Furthermore, neither side saw an improvement in net debt as a result of promotion to the EPL. On the contrary, promotion to the EPL actually resulted in a rise in net debt year on year. In comparison, the two relegated clubs (Coventry City and Sheffield Wednesday) have reduced their net debt after relegation and appear to be moving in the right direction towards positive figures. In the case of Sheffield Wednesday this is partly attributable to the situation alluded to earlier where the club was purchased by a new owner and some of the outstanding debt was subsequently written-off. It is also partly attributable to the harsher reality of the Football League in general and the widening financial gap between the EPL and the Football League that has been documented in the preceding literature review (see section 4.8, p.111). The difference among EPL clubs presently is that the revenue on offer to clubs through broadcasting, match day and commercial channels is large enough to sustain substantial losses. This is not the case further down the English league structure where clubs have to be more prudent in their financial management. For example, the latest figures available state that the average EPL club received £78.1m from television distribution payments alone in 2013/14. In contrast, the average Championship clubs' revenue for the latest figures available in 2012/13 was £18.1m in total including broadcasting revenues whilst the average total revenue of clubs in League 1 and League 2 was £5m and £3.6m respectively (Deloitte, 2014).

The functionality of the PAM means that very little can be gained from analysing the sporting performance of the four clubs before and after their respective promotions and relegations in isolation. This is because one of the three variables records cumulative league position, which will always return a lower rank score for the years where certain clubs have not competed in the EPL. Furthermore, one of the other remaining variables records attendance spread which will also be lower for the years in which clubs have not competed in the EPL, particularly at clubs with a large stadium (Coventry City's ground has a capacity of 32,609 with Sheffield Wednesday's slighter higher at 39,812). As a result of this, these two clubs will automatically have an inferior sporting performance score than the two clubs promoted to the EPL in Bolton Wanderers and Fulham. Figure 23 confirms this and presents the relationship between financial and sporting performance for all four clubs pre and post-2001. Figure 23 may not reveal anything unexpected in relation to the average sporting performance of each club pre and post-2001 but it is interesting to note that the average financial scores of all clubs do not alter significantly post their respective promotions and relegations. This appears peculiar, based on the substantial amounts of revenue available to EPL clubs but it also needs to be considered against the context of the other clubs in the study owing to the way in which the PAM computes the sub-domain scores. As previously stated, revenue at Bolton Wanderers and Fulham has risen exponentially since their respective promotions to the EPL (Bolton Wanderers recorded a revenue figure of £67.7m in 2011 whilst Fulham's was even higher at £77.1m). However, in relation to the other clubs in the thesis these two figures only equate to the 13th and 12th best score respectively. The top three clubs with the leading revenue figures in 2011 (Manchester United, Chelsea and Arsenal) recorded figures of £331.4m, £228.5m and £226.8m respectively. Clubs such as Bolton Wanderers and Fulham do not currently come to close to matching these more established clubs in terms of revenue generation and it is envisaged that FFP will make it considerably more difficult to breach such a gap when significant investment from owners is something that FFP is attempting to limit.

Figure 23 - Absolute Change in Financial and Sporting Index Scores Post-2001



In relation to the debate surrounding a move towards an ESL, introduced at the start of this case study, it is difficult to see such an idea coming to fruition within the European model for professional team sports. It would take a firm regulatory hand to persuade clubs that this is a good idea and beneficial for all. Undoubtedly, clubs that presently compete in the EPL would be in favour of the idea but based on the evidence of this case study it likely that a high majority of other league clubs (the 72 that compete in the other three tiers of the league) would be firmly against the idea of an ESL.

The results from case study 2 outline the gap that has emerged in recent years between the EPL and the leagues below it. Case study 2, similar to case study 1, is also reflective of the 'peculiar economics' of professional team sports (see section 3.3.3, p.75). Originally, the break-away by 22 clubs in 1992 to form the EPL had the makings of a closed-league structure which is evident in the North American model for professional team sports. However, whilst keeping the EPL an 'open' league (e.g. promotion and relegation is possible) may have been fairer for the league structure as a whole, there is little doubt that the subsequent broadcasting and commercial deals struck by the EPL benefit almost exclusively the clubs that compete in it and this is further evidenced in case study 2 when a new model to measure performance is applied. Both clubs that were promoted to the EPL in this case study (Bolton Wanderers and Fulham) saw their financial performance improve in the years post-promotion. However, both clubs that were relegated from the EPL (Coventry City and Sheffield Wednesday) also saw slight improvements in financial performance post-relegation although this change was negligible highlighting that it is still more beneficial for English football clubs to be competing in the EPL than in the lower leagues.

Case study 2 reflects the literature relating to the growth in revenues of EPL clubs during the last twenty years (see Deloitte, 2012) and the importance of broadcasting revenue to professional football clubs during the same period (as evidenced by Noll, 2007 for example). Deloitte have stated that revenues have been rising exponentially at clubs in the EPL during the last decade and this is evidenced by the revenue trends at Bolton Wanderers and Fulham since both clubs obtained promotion to the EPL in the early 2000s. A proportion of the increases in revenue are attributed to the increased broadcasting rights distributed among EPL clubs and Noll (2007) states that television has vastly increased the revenues of the most popular sports, including football.

Furthermore, case study 2 considers both proposals by UEFA FFP and EPL FFP which are attempting to address imbalances between revenues and costs in European football. However, the case study rejects the idea that a European Super League (ESL) is the open-market solution to the problems faced by European football clubs as suggested by Vrooman (2007). Some of the reasons behind this argument are more centred on governance and the implementation of new regulations rather than the benefits of a proposed ESL. However, the decline in revenue for clubs such as Sheffield Wednesday and Coventry City post-relegation outline the difficulties that face clubs that are relegated from the EPL. Introducing a new ESL or a closed league structure would take away the opportunity for lower league clubs to aim for the EPL and this may stagnate competition in the football league structure. There is also a counter argument to be made here. The rise in net debt at Bolton Wanderers and Fulham is a situation that is repeated throughout a number of EPL clubs (see Deloitte, 2013). If a closed league structure was in operation then clubs that compete in the break-away league would not have to worry as much about financial downturn as their league status would not be at stake. Presently, within the current league structure and without the cushion of a closed league structure similar to the one found in American team sports, many clubs in the EPL would face severe financial difficulties if they were to be relegated from it. This would support the proposal for an ESL but it is unlikely that this will happen in the foreseeable future owing to the issues of how the league would be governed and how new regulations would be implemented.

Case study 2 has outlined the financial differences between clubs that have been promoted to and relegated from the EPL. Not only does it offer insights into the impact that broadcasting revenues have on club revenues, confirming the work of Noll (2007), it also provides a further contribution based on the presentation of the data. For example, neither UEFA FFP nor Deloitte (outlined in chapters 3 and 4) apply inflation to the figures that are being discussed and analysed. For a dataset such as this one, which covers a 19 year period, inflation is an important consideration, although it appears to have little impact on the figures in the broader sense for the four clubs in case study 2. The figures (21 and 22) would have looked similar had inflation been ignored but the case study provides progression in this area by considering the time value of money. Inflation is not considered by Deloitte in their annual review of football finance when they benchmark against previous years. Subsequently, factoring in inflation rates means that the case study offers originality in the analysis.

7.3 Case Study 3 - Participation in European Competitions

One of the main critiques of FFP is that the regulations only apply, superficially, to clubs that wish to apply for a licence to compete in European competitions under the jurisdiction of UEFA. The majority of European clubs state that they wish to conform to the regulations but UEFA will impose the biggest penalties on clubs that compete in their European competitions (namely the Champions League and Europa League). This poses an intriguing discussion as to whether the regulations are actually worth conforming to for certain clubs, such as those who do not have the current ability, be it on the pitch or financially, to qualify for European competitions. All EPL clubs originally stated their intention to conform to FFP and the regulations. However, in light of the FFP regulations put forward by the EPL many clubs could, hypothetically, bypass UEFA FFP for now until they require a licence to compete in European competition. For example, the EPL FFP regulations allow for losses of up to £105m over three years.

Furthermore, the regulations will still allow clubs to follow the utility maximisation approach, albeit with a new owner having to invest in youth development and infrastructure as well. Theoretically, this means that a scenario could occur where a new owner purchases an EPL club and improves its playing staff, youth development and infrastructure within the limit of the £105m cumulative loss over three years whilst the more established clubs who compete in Europe regularly are conforming to the more stringent regulations of UEFA FFP which only allow a cumulative €45m loss in comparison.

However, the counter argument to this is that, ultimately, participation in European competition appears to be some form of 'holy grail' to football clubs, particularly in light of the revenues attached to UEFA's pinnacle competition the Champions League. Indeed, Real Madrid received €57.4m in prize money for winning the Champions League in 2014. Inevitably, the increased amount of prize money available for clubs that participate and are successful in European competitions means that the revenue figures recorded by these clubs will be substantially more than their competitors. Football finance analysts Deloitte state that participation in European competition allows clubs to grow revenues from matchday receipts and television broadcasting deals and that it also expands the commercial profile of the club (Deloitte, 2013). UEFA’s flagship competition the UEFA Champions League is often seen as the ‘holy grail’ to clubs that compete in European leagues and this competition is one of the reasons why Vrooman’s (2007) suggestion for a European Super League is yet to materialise. However, Pawlowski, Breuer and Hovemann (2010) have argued that the modification of the Champions League pay-out system has led to a decrease in competitive balance in the top five European leagues (England, Spain, Italy, France and Germany). With reference to this, has participation in European competition generally resulted in a better OPS for English clubs since the formation of the EPL and, if it has, which clubs have benefitted the most?

Case study 3 will attempt to answer this question by comparing clubs that have primarily competed in the Champions League, clubs that have primarily competed in the Europa League (formerly the UEFA Cup) and clubs that have never competed in European competitions. In order to select the appropriate clubs for this case study, table 30 below presents the seasons in which the 21 clubs analysed have competed in UEFA's two main European competitions (the Champions League and Europa League). Six clubs will be selected for this case study, the two clubs with the highest number of

Champions League appearances, the two clubs with the highest number of Europa League appearances and two clubs that have competed in neither European competition for the period under review. Table 30 also takes into account occurrences where clubs have competed in both the Champions League and Europa League in a single season which is a possibility if a club finishes in third position in their Champions League group.

Table 30 - Total European Participation by Club (1992/93-2010/2011)

Club	Total Champions League Appearances	Total Europa League Appearances	Total Combined European Appearances
Arsenal	13	2	15
Aston Villa	0	9	9
Blackburn Rovers	1	6	7
Bolton Wanderers	0	2	2
Charlton Athletic	0	0	0
Chelsea	9	3	12
Coventry City	0	0	0
Everton	1	4	5
Fulham	0	2	2
Leeds United	2	5	7
Leicester City	0	2	2
Liverpool	8	8	16
Manchester City	0	3	3
Manchester United	17	1	18
Middlesbrough	0	2	2
Newcastle United	3	5	8
Sheffield Wednesday	0	1	1
Southampton	0	1	1
Sunderland	0	0	0
Tottenham Hotspur	1	4	5
West Ham United	0	2	2

The six clubs to be analysed for this case study have been selected with reference to the total combined column and then subsequently the total Champions League and Europa League appearances column in table 30. The two clubs with the most appearances in the UEFA Champions League are Arsenal and Manchester United. The two clubs with the most appearances in the UEFA Europa League are Aston Villa and Liverpool. However, Liverpool has also competed eight times in the Champions League and its performance will be significantly affected because of this, particularly in comparison to Aston Villa which has never competed in the Champions League. Subsequently, Blackburn Rovers have been selected instead of Liverpool for this case study. They have the next highest amount of appearances in the UEFA Europa League after Liverpool and have only competed in the Champions League once in the 1995/96 season. Three clubs were eligible for selection for having not competed in Europe at all for the period under review (Charlton Athletic, Coventry City and Sunderland). Of these three clubs, the decision was taken to select Charlton and Sunderland owing to fact that they have competed in the EPL more recently than Coventry City who were relegated in 2001 and have subsequently never returned to the EPL. This was considered to be the most objective approach to selecting clubs for case study 3. It was important to attempt to maintain consistency in the case study by selecting clubs that could be benchmarked against each other and it was also important to differentiate between clubs that have competed consistently in the Champions League and Europa League and those that have never competed in Europe. With reference to table 30, the six clubs selected provided the best fit in line with the criteria outlined above.

Table 31 presents the complete set of performance scores (financial, sporting and overall) for the six clubs for all years studied (1993-2011). The table is ranked based on the average score for each club for each index with the figures shaded grey representing the year in which each club competed in Europe with reference to table 30. Club abbreviations have been used in table 31. For example, MUFC is Manchester United, AFC is Arsenal, AVFC is Aston Villa, SAFC is Sunderland, CAFC is Charlton Athletic and BRFC is Blackburn Rovers.

Table 31 - Full Index Scores for six clubs (1993-2011)

Financial Index Scores

Club	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	**Avg**
MUFC	**1.15**	**1.15**	**1.00**	**1.15**	**1.15**	**1.15**	**1.00**	**1.15**	**1.45**	**1.40**	**1.00**	**1.00**	**1.70**	**1.95**	**7.25**	**7.55**	**4.60**	**8.80**	**4.60**	2.64
AFC	7.30	5.15	6.00	8.10	**12.10**	**5.65**	**6.20**	**4.15**	**5.10**	**9.00**	**6.15**	**7.70**	**7.55**	**8.60**	**4.95**	**4.80**	**4.10**	**3.95**	**4.50**	6.37
AVFC	6.20	**7.35**	**7.95**	3.95	**7.05**	**3.50**	**3.60**	7.45	8.25	**7.30**	9.60	7.60	10.30	13.90	8.65	9.65	**12.35**	**12.90**	**16.55**	8.64
SAFC	13.80	13.30	12.75	14.10	7.05	6.90	5.30	6.45	5.25	8.25	14.80	10.80	13.45	6.10	14.80	7.50	10.80	10.70	10.00	10.11
CAFC	19.35	14.55	17.75	14.50	14.15	14.95	8.75	14.50	8.00	12.65	9.65	10.80	11.35	14.55	13.40	13.95	9.85	15.00	12.30	13.16
BRFC	19.10	15.60	**14.00**	**15.05**	15.30	15.50	**17.30**	20.25	15.50	11.85	**12.60**	**15.40**	17.10	16.65	**11.75**	**8.85**	11.00	8.30	11.75	14.36

Sporting Index Scores

Club	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	**Avg**
MUFC	**6.67**	**1.00**	**1.67**	**9.00**	**2.00**	**2.33**	**1.00**	**6.33**	**2.00**	**2.00**	**1.00**	**2.67**	**1.67**	**4.67**	**2.00**	**3.00**	**2.00**	**3.00**	**2.00**	2.95
AFC	6.67	7.33	8.00	6.00	**6.33**	**2.67**	**3.00**	**1.67**	**2.67**	**1.33**	**2.33**	**1.67**	**3.33**	**2.67**	**3.33**	**2.67**	**2.67**	**3.00**	**2.67**	3.68
BRFC	3.00	5.33	**7.67**	**6.67**	15.00	11.33	**13.67**	17.67	14.00	10.67	**9.67**	**15.33**	13.67	11.00	**11.33**	**10.00**	12.33	11.00	13.33	11.19
AVFC	10.00	**10.67**	**14.00**	8.67	**10.67**	**8.33**	**11.33**	11.33	15.33	**14.67**	16.00	12.00	16.00	15.67	15.33	13.00	**7.67**	**8.67**	**10.67**	12.11
CAFC	13.00	10.00	15.00	12.00	15.00	14.33	14.00	12.00	9.67	12.33	10.33	10.33	10.67	9.00	10.33	12.67	14.67	17.33	16.33	12.58
SAFC	16.33	10.67	15.33	16.67	12.67	17.67	12.00	11.67	7.33	17.33	16.00	16.00	18.00	18.00	19.33	16.00	14.67	13.67	11.33	14.77

Performance Index Scores

Club	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*	*1999*	*2000*	*2001*	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*	*2009*	*2010*	*2011*	**Avg**
MUFC	**3.22**	**1.09**	**1.25**	**4.09**	**1.47**	**1.59**	**1.00**	**3.09**	**1.66**	**1.63**	**1.00**	**1.63**	**1.69**	**2.97**	**5.28**	**5.84**	**3.63**	**6.63**	**3.63**	2.76
AFC	7.06	5.97	6.75	7.31	**9.94**	**4.53**	**5.00**	**3.22**	**4.19**	**6.13**	**4.72**	**5.44**	**5.97**	**6.38**	**4.34**	**4.00**	**3.56**	**3.59**	**3.81**	5.36
AVFC	7.63	**8.59**	**10.22**	5.72	**8.41**	**5.31**	**6.50**	8.91	10.91	**10.06**	12.00	9.25	12.44	14.56	11.16	10.91	**10.59**	**11.31**	**14.34**	9.94
SAFC	14.75	12.31	13.72	15.06	9.16	10.94	7.81	8.41	6.03	11.66	15.25	12.75	15.16	10.56	16.50	10.69	12.25	11.81	10.50	11.86
CAFC	16.97	12.84	16.72	13.56	14.47	14.72	10.72	13.56	8.63	12.53	9.91	10.63	11.09	12.47	12.25	13.47	11.66	15.88	13.81	12.94
BRFC	13.06	11.75	**11.63**	**11.91**	15.19	13.94	**15.94**	19.28	14.94	11.41	**11.50**	**15.38**	15.81	14.53	**11.59**	**9.28**	11.50	9.31	12.34	13.17

Table 31 highlights the differences between the six clubs analysed for case study 3. Manchester United and Arsenal return the best scores across all three indicators. It can be argued that this is in some way attributable to consistent qualification for the UEFA Champions League although both these clubs have also finished in high league positions regularly since the formation of the EPL. Furthermore, both clubs record low attendance spread figures and are the two biggest clubs in terms of revenue generation in the dataset. The fact that they are the two best performing clubs on average (with reference to the headline findings in Chapter 6) means that their position at the top of these ranking tables is unsurprising. Underneath these two clubs, however, an interesting finding emerges. The performance scores for all four clubs are close together and occasionally the clubs that have never competed in Europe return better performance scores than the clubs that have. Superficially, table 31 suggests that participation in the UEFA Europa League does not necessarily lead to improved performance based on the indicators measured in the model. However, this could be related to the differences between the Champions League and Europa League and there are a number of potential reasons for the closeness of these scores among these four clubs which require further consideration.

One of these potential reasons could be the differences in the amount of prize money awarded between the two UEFA European competitions. UEFA distributed a total of €904.6m in prize money to all clubs that competed in the Champions League for the latest set of figures available (2013/14). The winners of this competition, Real Madrid, earned the most in prize money (€57.4m) with the runners up, Atletico Madrid, receiving €50m. It must also be noted that the money allocated is not always equal among all the clubs. UEFA distribute a certain amount of prize money based on a share they define as the 'market pool'. In this case, prize money from the market pool is distributed according to the proportional value of the national TV market each individual team represented, among other factors, meaning that the amounts distributed varied from country (or national association) to country. Indeed, in 2013/14 quarter-finalists Paris St. Germain actually earned more in prize money (€54.4m) than the runners-up Atletico Madrid. Of the English clubs that competed in the Champions League in 2013/14 Arsenal and Manchester City reached the last 16 whilst Manchester United reached the quarter-finals and Chelsea the semi-finals. Despite Chelsea progressing further than Manchester United, the club actually received slightly less prize money (€43.3m compared to Manchester United's €44.7m) owing to the 'market pool'. The prize money available to clubs in the Champions League is substantially higher than the prize money distributed to clubs that compete in the Europa League. The winners of the Europa League in 2013/14 (Sevilla) earned €14.6m in prize money whilst the runners up (Benfica) earned €5.3m. This is over €50m less than Real Madrid received for winning the Champions League. Differences such as this will make a substantial difference to the revenue of a club and clubs that consistently qualify for the Champions League are better placed to receive higher amounts of prize money than clubs that compete in the Europa League or clubs that do not compete in European competition at all.

A further reason for the closeness in scores could be due to promotion to the EPL. Charlton Athletic, for example, was promoted to the EPL in 2000 and subsequently spent seven consecutive seasons in the league. As a result of this promotion, its financial index score improved primarily due to increases in revenue (evidenced in table 31). Similarly, Sunderland, in more recent years, has been a club that has fluctuated between the EPL and the league directly below (the Championship). Indeed, the club has experienced four promotions and three relegations since 1996. This subsequently has an effect on the financial and sporting performance (and index scores) of the club and overall performance fluctuates depending on which league the club are competing in.

Notwithstanding this, it is clear from the discussion outlined in this case study and the figures presented in table 31 that there is a benefit to the financial and sporting performance of clubs that compete in European competition. However, it appears that these benefits are skewed towards clubs that compete in the Champions League as opposed to the Europa League. This is certainly the case in relation to the six clubs analysed in this case study. The formation of the PAM further supports this conclusion. The rigour behind selecting the variables means that the PAM provides a justified approach to measuring performance and the results outlined in chapters 6 and 7 offer insights into the performance of English professional football clubs. It has often been stated that performance in the Europa League is not as beneficial as participation in the Champions League, particularly in relation to prize money and this case study offers a similar conclusion.

Furthermore, as previously stated, the financial regulations offered by the EPL are far less stringent than UEFA's, meaning that a scenario could occur where a club currently not competing in Europe, which does not have to conform to UEFA FFP, could absorb the losses acceptable under EPL FFP in an attempt to strengthen their squad enough to qualify for the Champions League. It is too early to tell, however, as to whether this would actually be a possibility and there are associated disadvantages to such a strategy. The case of Leeds United, who followed a similar strategy of overspending on players when no restrictions were in place, is well documented within football finance history in English football (see Wilson, 2011) and many clubs would be wary of taking a similar approach with the associated risks involved. Furthermore, there is another scenario that could occur where a club absorbs substantial losses in line with EPL FFP only to find that having qualified for the Champions League they do not meet UEFA requirements and are not granted a UEFA licence to compete in said competition. However, both UEFA and EPL FFP have only recently been implemented meaning that such scenarios as the ones detailed above remain hypothetical at the present time.

Case study 3 advances the findings of case study 2. Case study 2 analysed the arguments for and against an ESL (see Vrooman, 2007) and this discussion is also relevant in relation to case study 3. For example, if an ESL were to exist then the structure of the European competitions (the Champions League and Europa League) would probably be altered somewhat or even cease to exist. Case study 3 focuses on the impact that participation in the current European competitions has on performance and concludes that participation in the Champions League is most beneficial for English clubs in terms of performance. Subsequently, if an ESL was to exist, the clubs not involved in the new league would invariably suffer as a result and having limited or no option to compete against European opposition in competitions may lead to further downturns in performance for a number of clubs.

Furthermore, case study 3 has wider reaching implications for the regulations outlined by UEFA FFP and EPL FFP. Such regulations have only been implemented recently at the time of writing (2014) and it is difficult to ascertain, at the present time, what affect they may actually have. Subsequently, the field of literature surrounding FFP is relatively sparse meaning that the findings of the case studies detailed in this chapter can be seen as providing a new contribution to the field, with specific reference to governance in professional team sports. There are disadvantages to case study 3 that include the accounting concepts of comparability and consistency (see section 2.3, p.25). These shortcomings are also present in FFP in relation to the different regulations put forward by UEFA and the EPL. The fact that the regulations are different means that comparing clubs that compete and do not compete in European competitions may not be the best approach as they will be conforming to different regulations at the present time. However, the case study still provides like-for-like comparisons of the performance of the 6 clubs used in case study 3. The results of case study 3 prove that participation in European competition benefits clubs both in terms of financial and sporting performance. With reference to the rigorous procedures applied during the formation of the PAM, these results can be considered to be representative of the modern day professional football industry.

7.4 Case Study - The Changing Nature of the EPL

As Oprean and Oprisor (2013) state, football has evolved from a noble sport – played for reasons of entertainment – to a business during the last decade. It must also be noted that similar changes have been evident in other sports in addition to football. Indeed, Chadwick (2009) stated that major changes have taken place in sport in recent years, which have consequently led to the emergence and development of an associated sport management literature. Similarly, major changes have also occurred within the EPL in recent years. In 1991/92 the collective revenue of the 92 Football League clubs was £263m, with the average club in the old Football League Division One generating less than £8m. When inflation is accounted for, the collective revenue in 1991/92 is worth £444.5m with the average equating to £13.5m. Contrast this to 2011/12 and the 92 Premier and Football League clubs combined revenues were £2.9 billion, with average Premier League club revenues having risen to £114m, nearly 8 times their level 20 years previously (Deloitte, 2012). Even when inflation is accounted for, the rise in revenues at English football clubs has been substantial during the last 20 years and, in light of the new television deal due to run up until 2015, further increases in revenue appear likely.

As previously stated in chapter 4 (section 4.4, p.99), this spectacular rate of growth reflects the game's omnipresent domestic and global profile with the exposure and interest attached to the league being responsible for contributing to substantial increases in revenue for the clubs involved. However, it is has also been documented within the literature that there has been an increase in both revenues and costs, not just in English football (see Buraimo, Simmons and Szymanski, 2006 and Hamil et al. 2004) but also across European football (see Andreff, 2007 and Dietl and Franck, 2007 among others). This argument is also confirmed in chapter 6. In the EPL, revenue growth has been accompanied by corresponding increases in costs, and in particular players' wages. Deloitte (2012) stated that the control of players' wages, in order to deliver robust and sustainable businesses, remains football's greatest commercial challenge. Additionally, there have been changes in the way in which football clubs have been owned and managed in English football since the formation of the EPL in 1992. One of these issues, the foreign ownership model, has already been discussed in case study 1. Additionally, the issues of promotion and relegation and participation in European competition have also been considered in case studies 2 and 3 and analysis and discussion has been offered with reference to the findings of the literature review. Furthermore, the headline findings of the full dataset including some key financial headlines and indicators have also been discussed in the preceding chapter. Subsequently, this concluding case study will attempt to combine all the results and implications of the previous two chapters by analysing the changing nature of the EPL since its formation in 1992. To analyse the changing nature of the EPL since its formation the dataset will be split into two halves. One will focus on the first ten seasons of the EPL (1992/93 - 2001/02) whilst the other will focus on the remaining nine seasons (2002/03 - 2010/11). Comparisons will be made between relevant financial indicators that have been highlighted in the literature review, namely revenue, wage costs and debt before the index scores for financial and sporting performance across both time periods are considered. Once again, all figures have been adjusted to account for inflation and represent the value of money as at year end 2011.

7.4.1 Changes in Revenue

Table 32 - Changes in Average Revenue between 1993-2002 and 2003-2011

Club	Average Revenue £m (1993-2002)	Average Revenue £m (2003-2011)	Absolute Change	% Change
Fulham	9,357	58,453	49,096	525%
Manchester City	22,504	91,344	68,840	306%
Bolton Wanderers	16,861	62,127	45,267	268%
Chelsea	58,155	199,013	140,858	242%
Arsenal	59,103	190,236	131,133	222%
Liverpool	62,665	161,538	98,874	158%
Everton	30,624	72,299	41,676	136%
Charlton Athletic	15,097	34,605	19,508	129%
Blackburn Rovers	24,148	55,102	30,954	128%
Tottenham Hotspur	49,446	110,830	61,384	124%
West Ham United	32,075	68,495	36,420	114%
Manchester United	124,063	254,551	130,488	105%
Aston Villa	38,067	72,671	34,605	91%
Sunderland	28,723	54,023	25,300	88%
Middlesbrough	26,844	50,212	23,367	87%
Newcastle United	55,201	98,723	43,522	79%
Southampton	19,515	32,254	12,740	65%
Leicester City	23,452	20,895	-2,557	-11%
Leeds United	52,617	40,978	-11,638	-22%
Coventry City	19,334	12,388	-6,946	-36%
Sheffield Wednesday	21,299	12,297	-9,002	-42%

Table 32 charts the changes in the average revenue for each club over two separate periods of time. Table 32 shows that, generally, revenues have increased substantially during the last nine years analysed (post-2002). All clubs apart from four (Leicester City, Leeds United, Coventry City and Sheffield Wednesday) recorded increases in average revenue for the two time periods. Fulham posted the highest percentage increase overall with a 525% increase in revenue with Manchester City second with a 306% increase and Bolton third with an increase of 268%. The case of Fulham is a particularly relevant one as the time periods almost exactly coincide with the club's promotion to the EPL in 2001 (see case study 2). This was the first time the club have competed in the EPL and the club have since stabilised in this division. Consequently, the benefits are competing in the EPL are well documented within table 32. Prior to competing in the EPL, Fulham's average revenue was around £9.3m. This figure has since risen to £58.4m at the end of the 2010/11 season.

Aside from the high figures posted by Fulham, Manchester City and Bolton Wanderers, there are further positive trends evident throughout table 32. Indeed, for 12 of the 21 clubs, average revenue has doubled during the last 9 years compared to the period prior to 2002 (from Fulham down to Manchester United), whilst five other clubs (Aston Villa, Sunderland, Middlesbrough, Newcastle United and Southampton) have posted significant increases in revenue. Once again, however, it is important to consider the individual circumstances of each club to provide clearer analysis. For example, Manchester United's percentage increase of 105% is less than the percentage increases of the top 11 clubs in table 32. However, the club recorded a higher average than any of the other 20 clubs for the years prior to 2002 (£124m). Despite all the positive increases recorded in table 32, there are 4 clubs out of the 21 that actually recorded a slight decrease in revenue. In this instance, just as the increase in revenue at Fulham can be principally attributed to promotion to the EPL, the decreases at Leicester City, Leeds United, Coventry City and Sheffield Wednesday can be attributed primarily to relegation from the EPL (in 2004 (Leicester and Leeds), 2001 and 2000 respectively). Three of these clubs have yet to return to the EPL at the time of writing and their percentage decreases in revenue post-2002 are reflective of the widening financial gap between the EPL and the Football League as documented by Deloitte (2012) and case study 2 in this thesis.

7.4.2 Changes in Wage Costs

Table 33 - Changes in Average Wage Costs between 1993-2002 and 2003-2011

Club	Average Wage Costs £m (1993-2002)	Average Wage Costs £m (2003-2011)	Absolute Change	% Change
Manchester City	14,112	76,039	61,927	439%
Chelsea	34,729	152,980	118,250	340%
Fulham	11,132	45,044	33,913	305%
Bolton	10,680	40,172	29,492	276%
Arsenal	32,902	101,195	68,294	208%
Manchester United	41,651	117,365	75,714	182%
Aston Villa	20,254	56,246	35,991	178%
Charlton	10,285	27,219	16,934	165%
Liverpool	37,794	97,553	59,759	158%
Sunderland	15,213	38,254	23,041	151%
Newcastle	26,319	63,540	37,221	141%
West Ham	20,546	48,886	28,339	138%
Tottenham	24,400	57,609	33,208	136%
Everton	21,114	46,889	25,775	122%
Blackburn	23,460	44,180	20,720	88%
Middlesbrough	20,487	35,757	15,270	75%
Southampton	12,876	21,937	9,061	70%
Leicester	15,391	16,457	1,065	7%
Leeds	28,229	26,019	-2,210	-8%
Coventry	14,456	11,614	-2,842	-20%
Sheffield Wednesday	13,534	8,520	-5,014	-37%

Alongside the substantial increases in revenue that have occurred at EPL clubs in recent years, the literature review highlighted an increase in costs, mostly attributable to wage costs, which Beech (2010) highlighted as the main costs that a football club will face. This has been one of the factors that have led academics to cite an apparent 'financial crisis' both in English and European football in recent years (see Buraimo, Simmons and Szymanski, 2006 among others). Furthermore, Deloitte (2014) in their annual review of football finance state that the control of players' wages remains football's greatest commercial challenge after total wages across the EPL rose by £125m (8%) to £1.7 billion in 2012/13. Deloitte (2014) attribute this rise, primarily, to clubs that finished in the top six positions (i.e. UEFA competition qualifiers) in the EPL in 2012/13 and highlight that the increase across the league is indicative of the costs of both success and failure in the EPL. In light of this, table 33 outlines the average wage costs for the 21 clubs in this study for the periods 1993-2002 and 2003-2011. Contrary to the previous table (32) that focused on revenue, a desirable position in table 33 would actually be towards the bottom. This would indicate that a club has either attempted to keep wage costs down or does not have the financial capacity to increase them. Furthermore, any negative percentage change figure would indicate an average decrease in wage costs over the past 9 years, which would contradict the arguments put forward in the literature that costs have increased in line with revenue over the last 20 years.

With reference to table 33, three clubs (Leeds United, Coventry City and Sheffield Wednesday) have actually recorded an average decrease in wage costs post-2002. This is again indicative of the individual situations of those clubs. For example, these clubs have not competed in the EPL since for the last decade and have subsequently had to manage their financial position accordingly, based on the projection of lower revenues in the lower leagues. Furthermore, in the case of Sheffield Wednesday, the club were threatened with liquidation in 2010 and no longer appear to be willing to spend substantial amounts of money on players' wages. It is unsurprising that the bottom five clubs in table 33 (wage costs) are the exact same five clubs that finish at the bottom of table 32 (revenue) (Southampton, Leicester City, Leeds United, Coventry City and Sheffield Wednesday). Generally, without the aid of a benefactor, clubs will not be able to increase wages substantially without first experiencing an increase in revenue. These five clubs have spent much of the last 9 years (post-2002) competing outside of the EPL and have had to re-adjust their spending accordingly in light of smaller increases, or even decreases in revenue. With reference to these five clubs, there is a contradiction in relation to the evidence in the literature review that costs have increased in line with revenue in recent years. It appears, particularly at these five clubs, that a decrease in revenue has resulted in a decrease in costs. This is logical from a business point of view and the principles of financial reporting in chapter 2 (see section 2.1 p.11) and the majority of clubs in the Football League appear more financially prudent than those in the EPL, where financial management is often less prudent due to the associated revenues and television payments. This is evidenced by the increases in net debt and reduction in profitability throughout the EPL in recent years as reported by Deloitte and the results of chapters 6 and 7 of this thesis.

The top half of table 33 (Manchester City to Sunderland) poses some interesting reflections when considering the literature review and headline findings outlined in chapter 6. The majority of literature surrounding this field considers the concepts of profit and utility maximisation with the general consensus among academics being that the European sports model is more closely related to utility or 'win' maximisation (see Garcia-del-Bario and Szymanski, 2006; Kesenne, 1996, 2000; Sloane, 1971). Two EPL clubs have often been used as examples of a utility or 'win' maximiser in recent years (Chelsea and Manchester City). Chelsea are undoubtedly indebted to their benefactor owner Roman Abramovich, who is estimated to have invested around £800m of his own personal wealth into the club since taking over in 2003, whilst Manchester City are currently owned by Sheikh Mansour who has also already invested around £800m since 2008. Manchester City have been labelled as a utility maximising club (see Wilson, Plumley and Ramchandani, 2013) since Sheikh Mansour's takeover, just as Chelsea have been in recent years following Abramovich's purchase of the club. This is due to Manchester City displaying similar characteristics to Chelsea when investing in new players. Indeed, Manchester City's continued investment in their playing staff and victory in the FA Cup in 2011 led to £41m increase in wage costs and one would expect to see that figure rise further in light of the club's EPL title successes in 2012 and 2014.

The headline findings reported in chapter 6 (see figure 14, p.191) detailed that the performance of Chelsea on average had led them to be the only club in the study that were situated in the quadrant which best depicted utility maximisation. Furthermore, chapter 6 also highlighted that it is reasonable to suggest that Manchester City will move up into the utility maximisation quadrant in future years. Table 33 also appears to confirm part of this suggestion, with these two clubs recording the largest average increases in wage costs over the last 9 years (Manchester City's average wages increased by 603% and Chelsea's by 451%). Fulham, who recorded the third highest average increase in wage costs at 393%, remain more of a cause for concern with reference to table 33 above and figure 14 (p.191) in Chapter 6. Fulham display the characteristics of utility maximisation, yet their sporting performance is considerably worse than the majority of other clubs.

7.4.3 Changes in Net Funds/(Debt)

Table 34 - Changes In Average Net Funds/(Debt) between 1993-2002 and 2003-2011

Club	**Average Net Funds/(Debt) £m (1993-2002)**	**Average Net Funds/(Debt) £m (2003-2011)**	**Absolute Change**	**% Change**
Arsenal	(3,337)	(218,687)	-215,350	6453%
Liverpool	(4,806)	(144,163)	-139,356	2899%
Manchester United	15,930	(310,358)	-326,288	2048%
Aston Villa	4,369	(60,746)	-65,115	1490%
Chelsea	(44,792)	(503,114)	-458,323	1023%
Sunderland	(6,524)	(57,437)	-50,913	780%
Manchester City	(16,304)	(113,664)	-97,360	597%
Newcastle	(23,434)	(129,631)	-106,196	453%
Fulham	(36,254)	(191,121)	-154,866	427%
Tottenham	(8,047)	(29,025)	-20,978	261%
Middlesbrough	(27,903)	(83,065)	-55,162	198%
Bolton	(20,894)	(59,572)	-38,678	185%
Leicester	(8,731)	(24,667)	-15,936	183%
Southampton	(7,354)	(20,598)	-13,244	180%
West Ham	(16,758)	(44,959)	-28,201	168%
Sheffield Wednesday	(10,782)	(27,369)	-16,587	154%
Everton	(17,399)	(38,658)	-21,259	122%
Charlton	(4,910)	(7,287)	-2,377	48%
Blackburn	(36,903)	(47,219)	-10,316	28%
Coventry	(27,752)	(29,251)	-1,499	5%
Leeds	(27,126)	(17,078)	10,048	-37%

Table 34 presents the average changes in net funds/(debt) between the years 1993-2002 and 2003-2011. A desirable placing for a club is again towards the bottom of the table. A positive percentage change represents an increase in net debt whilst a negative percentage change represents a reduction in net debt. Table 34 clearly reflects the arguments put forward in the literature review (e.g. Buraimo, Simmons and Szymanski, 2006) that the English football clubs have problems with debt, particularly during the last eight years. It can be argued that this debt is not too much of a problem as long as it remains serviceable although the figures in table 34 are concerning considering principles of financial management such as prudence and going concern (see Louwers, 1998; Martin, 2000). There are only two positive absolute figures throughout table 34. Both Manchester United and Aston Villa recorded average net funds for the years 1993-2002 (£15.9m and £4.3m respectively). However, since then, these two clubs are responsible for recording the third and fourth largest increases in net debt in percentage terms (2048% and 1490% respectively). Large increases such as these and the ones recorded by Arsenal (6453%), Liverpool (2899%), Chelsea (1023%), Sunderland (780%) and Manchester City (597%) highlight how the finances of football have changed dramatically during the last decade. Furthermore, 20 out of the 21 clubs recorded increases in debt during the last 9 years and table 34 supports the argument that costs have been increasing in recent years despite the substantial increases in revenue. This statement is further validated by the formation of the PAM and the fact that the figures are adjusted to account for inflation. Literature in chapter 2 states the importance of financial information possessing consistency so that the information being compared can be classed as like-for-like (e.g. Cairns et al., 2011; Power, 2010). The fact that all figures in case study 4 are inflated to reflect the value of money in 2011 means that consistency and comparability is present within the dataset and the percentage increases are more reliable and valid than they would have been if inflation was excluded.

With reference to table 34, Leeds United is the only club to have actually seen a reduction in net debt during the last 9 years with the average debt falling from £27.1m to £17m. This figure is still concerning considering the principles of prudence and the going concern assumption (see Louwers, 1998; Martin, 2000), particularly in the leagues outside of the EPL where revenue streams are not as high, although there are further exceptional circumstances in the case of Leeds United. The club began trading under the formation of a new company in 2007, following liquidation, meaning that the club's previous debt does not show in the new accounts. This will be reflected in the average figure for the years 2003-2011 and should be analysed with caution. It is envisaged that the formation of this new company which Leeds United now trade under can be attributed in part to the reduction in net debt at the club.

Figure 14 in chapter 6 (p.191) highlighted the relationship between financial and sporting performance over the 19 seasons analysed and charted the average financial and sporting performance of each club on a scatter chart. A similar process will now be utilised for this case study to examine how significant a shift there has been throughout all 21 clubs during the last 9 years of the EPL as opposed to the first 10. The analysis will first present the overall changes in each club's financial and sporting performance for both time periods before displaying the changes in performance on a scatter chart similar to figure 14 in chapter 6 (p.191).

Table 35 - Average Changes in Financial, Sporting and Performance Index Scores between 1993-2002 and 2003-2011

	Financial Performance			*Sporting Performance*			*Overall Performance*		
Club	**Avg. Index Score 1993-2002**	**Avg. Index Score 2003-2011**	**Absolute Change**	**Avg. Index Score 1993-2002**	**Avg. Index Score 2003-2011**	**Absolute Change**	**Avg. Index Score 1993-2002**	**Avg. Index Score 2003-2011**	**Absolute Change**
Arsenal	6.88	5.81	**1.06**	4.57	2.70	**1.86**	6.01	4.65	**1.36**
Aston Villa	6.26	11.28	**-5.02**	11.50	12.78	**-1.28**	8.23	11.84	**-3.62**
Blackburn	15.95	12.60	**3.35**	10.50	11.96	**-1.46**	13.90	12.36	**1.54**
Bolton	13.68	10.51	**3.17**	13.87	10.22	**3.64**	13.75	10.40	**3.35**
Charlton	13.92	12.32	**1.60**	12.73	12.41	**0.33**	13.47	12.35	**1.12**
Chelsea	9.77	14.11	**-4.35**	8.10	3.48	**4.62**	9.14	10.13	**-0.98**
Coventry	15.94	15.52	**0.42**	14.03	16.41	**-2.37**	15.23	15.85	**-0.63**
Everton	12.60	10.54	**2.06**	14.63	9.59	**5.04**	13.36	10.18	**3.18**
Fulham	18.23	15.64	**2.59**	14.03	9.89	**4.14**	16.66	13.48	**3.17**
Leeds	10.07	9.02	**1.05**	9.07	16.37	**-7.30**	9.69	11.78	**-2.08**
Leicester	11.48	13.07	**-1.59**	11.53	15.59	**-4.06**	11.50	14.02	**-2.52**
Liverpool	7.56	8.89	**-1.33**	7.53	5.15	**2.39**	7.55	7.49	**0.06**
Man City	12.82	12.00	**0.82**	13.17	9.67	**3.50**	12.95	11.13	**1.83**
Man United	1.18	4.27	**-3.10**	3.40	2.44	**0.96**	2.01	3.59	**-1.58**
Middlesbrough	15.31	13.83	**1.47**	11.30	11.85	**-0.55**	13.80	13.09	**0.71**
Newcastle	8.30	11.05	**-2.75**	5.97	9.52	**-3.55**	7.43	10.48	**-3.05**
Sheff Weds	11.64	11.13	**0.50**	14.77	17.81	**-3.05**	12.81	13.64	**-0.83**
Southampton	12.41	11.64	**0.77**	9.97	14.59	**-4.63**	11.49	12.75	**-1.26**
Sunderland	9.32	10.99	**-1.68**	13.77	15.89	**-2.12**	10.98	12.83	**-1.85**
Tottenham	5.28	4.83	**0.45**	10.47	6.63	**3.84**	7.23	5.50	**1.72**
West Ham	10.57	10.66	**-0.09**	10.97	11.44	**-0.48**	10.72	10.95	**-0.24**

Table 35 charts the average index scores and absolute changes in financial, sporting and overall performance for the years 1993-2002 and 2003-2011. The rows highlighted with grey shading show the clubs that have recorded a positive improvement in overall performance during the most recent years analysed while the other rows represent clubs that have recorded a negative change in overall performance. The clubs that have shown most improvement in financial performance during the last 9 years analysed are Blackburn Rovers and Bolton Wanderers, closely followed by Fulham and Everton. Interestingly, both Everton and Fulham also recorded the most improvement for on-pitch performance alongside Chelsea, Bolton Wanderers, Manchester City and Tottenham Hotspur. The on pitch improvement of Chelsea and Manchester City further supports the argument that these two clubs have been displaying utility maximisation characteristics in recent years.

Overall, in relation to the two time periods analysed, 10 clubs (shaded in grey) record an improvement in their overall index scores whilst 11 clubs record a decrease in their overall index score. Once again it is important to analyse these results subjectively as the individual scores of some clubs may be considered poor in isolation but not so poor when benchmarked against the other clubs. Notwithstanding this, there are some interesting conclusions to be drawn from table 35 and these shall now be further analysed in figures 24 and 25 which track where clubs have moved to in relation to the four quadrant model outlined in chapter 6 (p.191). Figure 24 will firstly focus on the clubs that have recorded an improvement in performance before figure 25 focuses on the clubs that have recorded a decrease in performance.

Figure 24 - The movement of clubs that have shown an improvement in overall performance between the years 1993-2002 and 2003-2011

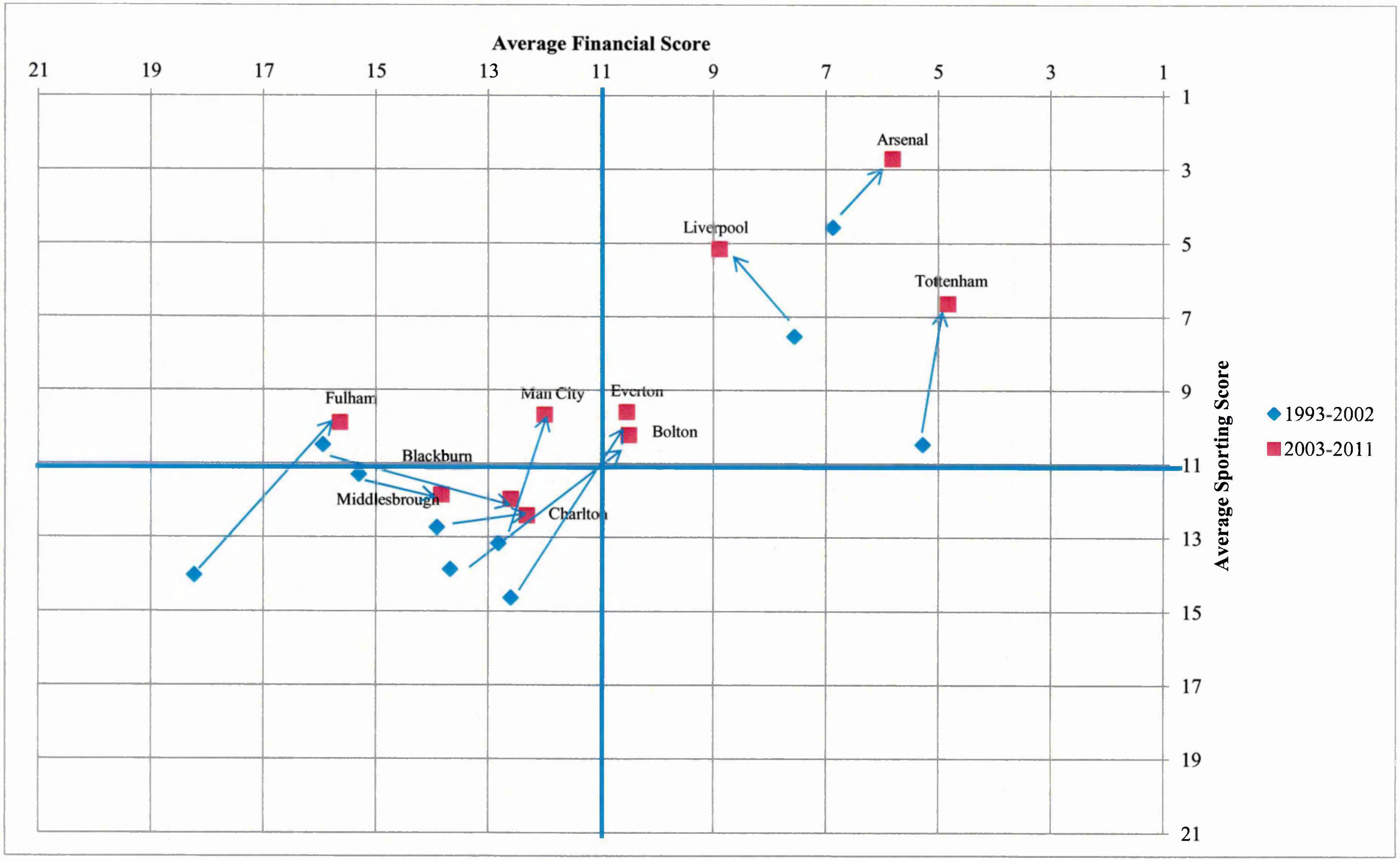


Figure 24 records the movement of the clubs that recorded an improvement in overall performance during the last 9 years analysed. The blue data markers reflect the average financial and sporting performance scores for the first 10 years of the EPL (1993-2002) whilst the red data markers reflect the most recent 9 years for which data is available (2003-2011). The arrow and its direction reflect where each club has moved from and to post-2002. If overall performance was improving, then one would expect all clubs in figure 24 to be moving towards the top right hand corner of the quadrant, *ceteris paribus*. However, this is not always the case for each club with reference to figure 24 and this can in part be related to the discussion around profit and utility maximisation and owner objectives, two of the most important theoretical concepts in relation to this thesis.

With reference to figure 24, broad analysis suggests that Fulham, Manchester City, Everton, Bolton Wanderers, Arsenal and Tottenham Hotspur have been moving in the right direction in recent years towards the top right hand quadrant. However, both Fulham and Manchester City appear to be moving more towards the utility maximisation quadrant where the emphasis is primarily on improved sporting performance as opposed to prudent financial management. Everton and Bolton Wanderers are the two clubs that appear to have improved most during the last 9 years, moving from the bottom left quadrant to the top right. Arsenal and Tottenham Hotspur were already well placed based on the first 10 years analysed and have continued to improve both their on-pitch and off-pitch performance in recent years. These two clubs appear to be a model to follow for others in relation to figure 24. This is because their financial performance has been improving consistently during the last twenty years alongside both clubs maintaining relatively successful performance on the pitch. Furthermore, the average performance of both these clubs as outlined in the headline findings in Chapter 6 (see section 6.9, p.181) has been consistently good in relation to other clubs over the last 19 years. It is interesting to note that these two clubs have predominately, over the last 19 years, adopted the stock market model approach to ownership. Wilson, Plumley and Ramchandani (2013) found the stock market model approach to ownership to return better financial performance than either the domestic ownership or foreign ownership model and some of the findings of this thesis positively support these findings.

The position of Liverpool in figure 24 can also be linked to the ownership of the club in recent seasons. In figure 14 (p.191) Liverpool were placed in the top right hand quadrant of the graph and were cited as one of the clubs with consistently good performance across both indicators. This is also re-affirmed in figure 24 above, although the club appear to be moving more towards utility maximisation in recent years. This position does not favour the argument put forward in the literature review by Garcia-del-Barrio and Szymanski (2009) who questioned whether or not the influx of American owners at EPL clubs could lead to a move towards profit maximisation. Liverpool's last two owners have been American and figure 24 contrastingly depicts a move towards utility maximisation rather than profit maximisation.

There are three clubs, however, which appear to be moving more towards profit maximisation in recent years with reference to figure 24 (Blackburn Rovers, Middlesbrough and Charlton Athletic). Both Blackburn Rovers and Middlesbrough show an improvement in financial performance post-2002 although their sporting performance was better for the first 10 years studied. Charlton Athletic recorded an average increase in both financial and sporting performance during the last 9 years which is attributable to their promotion to the EPL in 2000. However, the club subsequently suffered relegation in 2007 and have yet to return to the EPL. Therefore, it is reasonable to suggest that the club will subsequently move backwards if analysed in the model in future years owing to reduced income streams and a decline in sporting performance.

Figure 25 - The movement of clubs that have shown a decrease in overall performance between the years 1993-2002 and 2003-2011

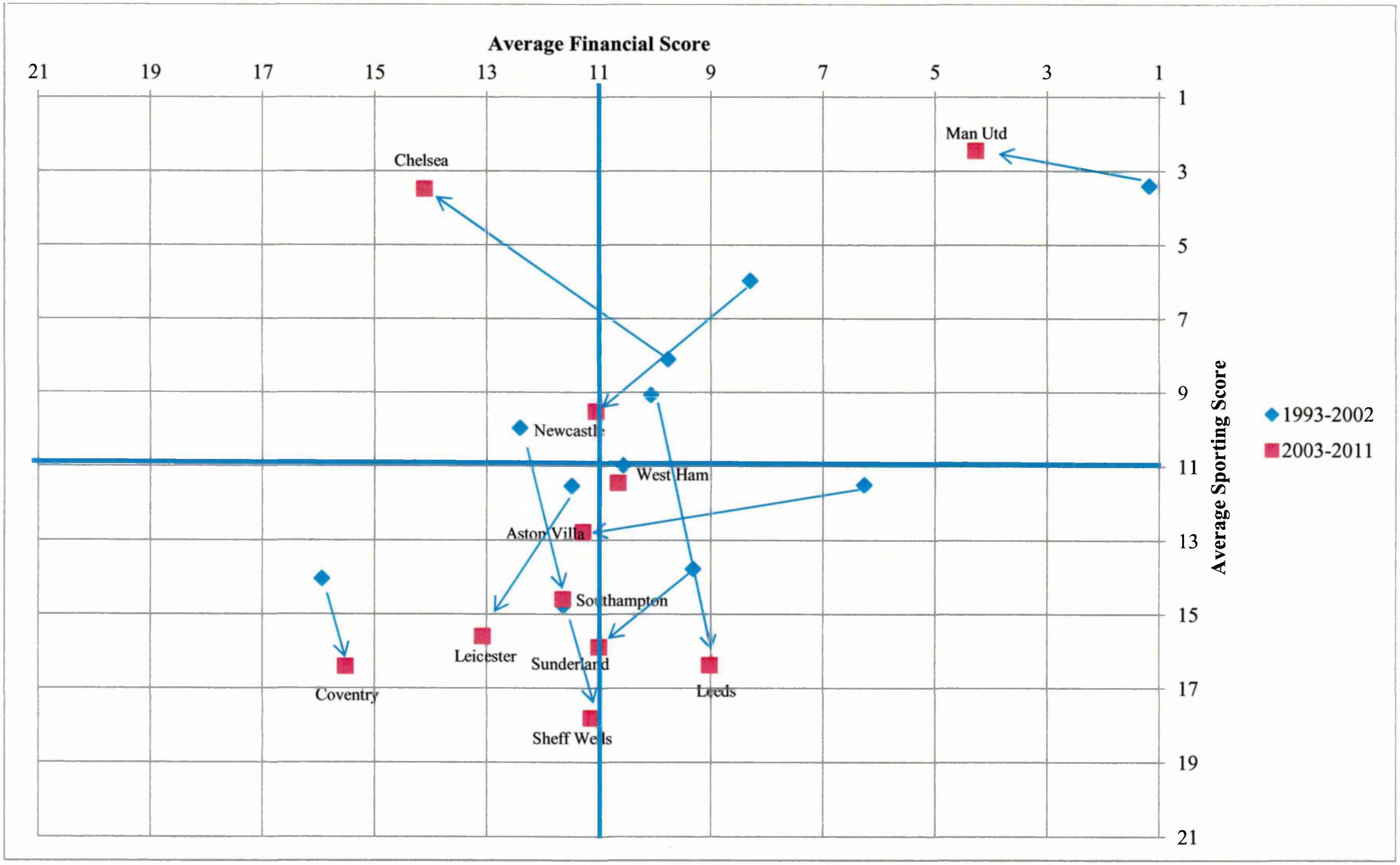


Figure 25 presents the movements of clubs that have recorded decreases in overall performance during the last 9 years. Again, the blue data points relate to performance between the years 1993-2002 and the red data points indicate performance between the years 2003-2011 with the arrow and its direction highlighting the movement. Each club has a data label underneath their performance for the years 2003-2011 (red data points).

It is evident from figure 25 that only 1 club out of the 11 who recorded decreases in performance can still be considered to be in a relatively healthy position. Manchester United is the only club to remain in the best performing quadrant for the second period analysed (2003-2011) albeit it that the club appear to moving towards utility maximisation. This appears strange, considering the argument in the literature review that the Glazer takeover of Manchester United could actually be the first ownership deal in the EPL where profit maximisation was the sole motivation of the owners. However, the Glazer's purchased the club through debt finance and the substantial interest payments associated with the terms of the purchase has meant that the club's net debt figure has risen substantially in recent years. This has subsequently affected the club's financial index scores, which were near perfect at 1.18 prior to 2002. As a result of this the club is reflected in figure 25 as moving towards the utility maximisation quadrant.

By contrast, one club that has definitely displayed characteristics of utility maximisation in recent years is Chelsea. The club has recorded an improvement in sporting performance coupled with a concurrent downturn in financial performance in recent years since the takeover by Roman Abramovich. Both Andreff (2007) and Dietl and Franck (2007) outline the incentive to overinvest and shareholders behaving as non-profit seeking investors as an example of softening a club's budget restraint and therefore relaxing the financial discipline over managers and the recent influx of foreign investors within the EPL in recent years is testament to this (see Wilson and Plumley, 2009, 2010, 2011). This is certainly the case at Chelsea where Roman Abramovich has invested over £800m of his own money into the club to date, the majority of which has been spent on player purchases and wages.

The majority of clubs analysed in figure 25 fall into the bottom two quadrants. It is no surprise that the clubs who record the sharpest descent are those that have been relegated from the EPL and did not return to the league for the years covered (Coventry City, Leicester City, Southampton, Sheffield Wednesday and Leeds United). The case of Leeds United is a peculiar one as it has actually moved into the profit maximisation bracket in recent years. However, this can again be attributed to the point made earlier in this chapter with regards to the club reforming as a newly incorporated company. In the headline findings in chapter 6 (see section 6.9, p.181) only Aston Villa were placed in the profit maximisation quadrant when average performance over 19 years was considered (see figure 14, p.191). However, with reference to figure 25, the club appear to have moved in the opposite direction away from profit maximisation towards the quadrant which represents poor financial and sporting performance. Figure 25 outlines that the club's on-pitch performance in recent years has altered very little yet their financial performance has become considerably worse. This could be a potential problem for the club as English football begins to be regulated by FFP.

FFP is a pressing concern for all clubs in the thesis and at the present time it is too early to tell exactly what effect it will have. It will almost certainly require clubs to reinvent their respective business models and move towards a more prudent structure of financial management. This case study has highlighted the changing nature of the EPL and has found an increasing disparity between rising revenues and rising costs in recent years, confirming the arguments put forward in the literature review. It is envisaged, theoretically, that FFP will help eradicate such problems and that in years to come both English and European football clubs will become more financially sustainable and self-sufficient business entities.

Case study 4 analyses the changing nature of the EPL and the changing nature of sport finance more generally which Chadwick (2009) documents as the reason for the increasing body of literature on sport management and its subsequent establishment as a research field in its own right. This case study offers further insight into the increasing inconsistency between rising revenues and rising costs in English professional football and the characteristics of individual clubs in relation to the principles of profit and utility maximisation. Furthermore, case study 4 applies inflation factors to the figures meaning that all values relate to actual value of money at year end 2011. In doing this, the case study provides like-for-like comparisons which have not previously been considered in football finance based analysis that Deloitte (various years) undertake. Furthermore, the comparability aspect of case study 4 that is highlighted as a key component within accounting theory (see section 2.3, p.25) is assured by applying inflation to the figures for each year. Lastly, case study 4 shows that, with reference to all clubs, there have been substantial increases in revenue, wage costs and net debt during the last decade in English football. Furthermore, evidence from figures 24 and 25 show that some clubs have recorded an improvement in overall performance (10 out of 21 clubs) whilst others have experienced a decline in overall performance (11 out of 21 clubs). Such changes in performance can be attributed to improvement on the pitch and the subsequent financial rewards (e.g. Fulham - a club which has been promoted from the bottom division to become an established EPL club during the last decade) or a reflection of a certain ownership structure which in turn impacts on performance (e.g. Chelsea - whose utility maximisation approach has improved on-pitch performance but has caused financial performance to decline).

Underpinning these changes is the theory of the 'peculiar economics of professional team sports' discussed in chapter 3 (see section 3.3.3, p.75). The formation of the EPL in 1992 led to increased broadcasting deals for clubs competing in this league. In turn, this led to increased revenues providing more spending power to re-invest in better playing talent. Alongside this, the global allure of the league coupled with lax financial regulations saw an increase in foreign investors who re-ignited the debate surrounding profit versus utility maximisation in English football. This spectacular rate of growth, and financial mismanagement, is portrayed clearly in case study 4 and provides further insights into the literature available on this topic through the use of a new model (the PAM) which combines, in a new way, variables of financial and sporting performance to provide a new measure of overall performance as stated in the rationale for this thesis (section 1.2).

7.5 Summary and Contribution to Knowledge

Chapter 7 has analysed a number of different aspects that effect English football clubs and has used accounting theory to provide further insights into current issues and topics within the professional football industry. Chapter 7 has documented the impact of foreign ownership, the impact of promotion and relegation, the impact of participation in European competition and the changing nature of the English football landscape during the last 20 years. Owing to the formation of the PAM (chapter 6), the thesis is confident that chapter 7 also presents information in an original way and that the insights into current issues within English football provide contribution to knowledge in this area. Furthermore, all case studies have been discussed in relation to relevant theories surrounding the 'peculiar economics of professional team sports' and provide progression in this area based on the PAM and the overall rationale for the thesis.

It was stated in the introduction (chapter 1) that there is a significant problem with financial management and debt in the European game (Drut and Raballand, 2012) and that there are imbalances between revenues and costs among European football clubs (see Andreff, 2007; Ascari and Gagnepain, 2007; Barros, 2006; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010). Chapter 7 has analysed these arguments in new ways and has applied a longitudinal aspect to data analysis that has not previously been considered in academic literature in this area. Indeed, some of the statements put forward by previous authors above have been confirmed through the analysis provided in chapter 7. Furthermore, chapter 7 has offered new insights into the effect of foreign ownership on English football clubs which is an area that is still largely under researched at the present time.

Chapter 7 provides a further contribution to knowledge owing to the way the data has been analysed. Accounting information and analysis is often criticised as being difficult to replicate owing to reliability and the differences in how financial information is reported within the conceptual framework of accounting theory (see for example, Barlev and Haddad, 2003; Cairns et al., 2011; Georgiou and Jack, 2011; Hines, 1991; Nobes and Roberts, 2000; Penman, 2007; Power, 2010). This chapter alleviates such concerns as much as is physically possible and provides contribution to the field owing to the formation of the PAM and also by applying inflation factors to all figures considered in the four case studies. In doing so the chapter provides like-for-like comparisons within the industry and despite accounting being a contested discipline in the academic work undertaken in the area, there are meaningful results and discussion that can be drawn from the thesis.

Alongside the advancements made by the two preceding chapters to the theoretical knowledge base, one further contribution is noted. The analysis presented in this thesis bears reference to the systematic literature review and the discussion has highlighted where the results of the thesis contradicts, complements or adds to the theory in this field. However, one of the main advantages of the thesis is the longitudinal aspect of data collection. The full dataset considers 19 years data and 8 different variables. No previous research paper, to the author's knowledge, considers this amount of information. As such, the thesis provides contribution to the field as it outlines one of the most comprehensive reviews of English football clubs' performance since the formation of the EPL in 1992. In summary, the two results chapters have added a contribution to knowledge in relation to performance measurement in professional team sports with chapter 6 providing the greatest contribution to knowledge of this thesis. Chapter 7 has provided a further contribution to knowledge by analysing case studies grounded in accounting theory using original and unique methods. Chapter 8 now proceeds to detail general discussion on the thesis highlighting its strengths and limitations alongside the general contribution to knowledge and direction for future research.

CHAPTER EIGHT

GENERAL DISCUSSION

Chapter 1
- Introduction, Purpose and Rationale
- Aims and Objectives

Chapter 2
- The Nature and Purpose of Financial Reporting and the Contested Nature of Accounting Theory

Chapter 3
- A Systematic Review of the Literature Surrounding Performance Measurement in Business and Sport

Chapter 4
- A Narrative Literature Review of Finance in Professional Team Sports

Chapter 5
- Methodology

Chapter 6
- Pilot study, Model Formation and Headline Findings

Chapter 7
- Case Studies

Chapter 8
- General Discussion

8.1 Overview of the Thesis

The overall aim of the thesis was to devise and test a performance analysis model that incorporates both financial and sporting variables with the application of weighting factors that can be used to measure the performance of teams in the EPL. In order to achieve this aim, three objectives were devised which included producing a set of measurement variables justified through literature and rigorous scientific processes and then to use the English professional football industry as a pilot for a new model. This section describes how this aim was achieved by providing an overview of all chapters in the thesis.

The rationale for this thesis documented a financial problem that costs were rising exponentially across European football clubs despite rising revenues (see Andreff, 2007; Ascari and Gagnepain, 2007; Barros, 2006; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010) and the move towards the financial performance of professional clubs being monitored and governed through new regulations, namely UEFA FFP. Furthermore, the contextual background of the thesis highlighted the increasing amount of literature focusing on sport finance and the measurement of financial performance in sport (see Conn, 2000; Dobson and Goddard, 2011; Hamil and Chadwick, 2010; Morrow, 2003 and Szymanski and Kuypers, 1999). Following this, the thesis presented the theoretical underpinnings of the study in the form of the contested nature of accounting theory and reporting financial performance. Understanding the theoretical and contextual framework of the study is an imperative aspect of any thesis and the findings of chapter 2 helped to define the parameters of the thesis and the direction of the literature review. Chapter 2 concluded that, notwithstanding some of the criticism that has been associated with accounting standards and principles in the past, it is clear that there is a procedure in place for the formation of annual accounts and the way in which financial performance must be reported. All companies must adhere to the fundamental principles of accruals, prudence, going concern and consistency within their financial reporting. Once the accounting framework and theoretical background had been identified the thesis progressed to undertaking a two stage literature review that covered football, finance and performance measurement. Both the systematic review in chapter 3 and the narrative review in chapter 4 allowed the thesis to pinpoint the gaps in the literature and assess the direction of the research study from this point.

Following this systematic literature review and the identification of relevant gaps in the literature, the thesis proceeded to produce two results chapters (6 and 7). Chapter 6 devised and tested a model that incorporates both financial and sporting performance variables with the application of weighting factors that can be used to measure performance in professional team sports. This model was formulated owing to the fact that many studies in the past examined the relationship between sporting and financial performance. However, a high majority of these studies applied differing statistical techniques to conduct their analysis and, seemingly, handpicked the variables used each time as opposed to adopting a more objective approach to selection. The main conclusion of the literature review was that there was no set model that combined financial and sporting variables utilising such an approach. Hence the formulation of a new model (the PAM) to measure performance and the analysis of the English football industry using the PAM to produce a new scientifically developed performance assessment model that is industry relevant.

Chapter 6 and the formation of the model answered the aim of the thesis (section 1.3.1) and three of the objectives (1.3.2) whilst Chapter 7 answered objective number four (1.3.2) by analysing the performance of clubs in the English football industry through a number of case studies which measured performance in ways which it had never been measured previously owing to the formation of the model in chapter 6. Through achieving the aim and objectives the thesis has provided a contribution to knowledge in the area of performance management in professional team sports which will now be discussed.

8.2 Main Findings and Advancement of Theoretical Knowledge made by the Thesis

The thesis has made several contributions to knowledge at different points. However, from a theoretical perspective, the main advancement of knowledge made by the thesis is the formation of the PAM. Chapter 6 devised and tested a model that incorporates a number of financial and sporting performance variables with the application of weighting factors to examine the performance of professional football clubs. This model was determined through objective scientific procedures and highlighted, for the first time, the relationship between certain variables and how closely some correlated to others. To the author's knowledge this is something that previously has not been present, certainly in the literature outlined in this thesis. Subsequently, the formation of the PAM can be documented as the main contribution to knowledge.

Additionally, the thesis has also provided a contribution to knowledge in other areas. Chapter 2 documented the accounting framework and the inconsistencies with financial reporting within different organisations and industries. The fact that this has led to problems with comparability between organisations in the past was something that the thesis had to be aware of and the formation of the model in chapter 6 was vital in contributing to the advancement of theoretical knowledge. The narrative outlined in chapters 6 and 7 ensured that all the main findings of the thesis can be analysed in a manner that is like-for-like and comparable and in light of the inconsistencies of financial reporting highlighted in chapter 2, it is clear that the thesis has provided a contribution in the area of organisational performance measurement in professional team sports. Furthermore, the review of literature in chapters 3 and 4 allowed the thesis to identify gaps in the literature which aided the progression through chapter 5 to chapters 6 and 7. The table that identified gaps within the literature (table 11, p.118) documented previous approaches to performance measurement across a wide range of industries and allowed the thesis to summarise where the main gaps were which meant that a model could be formulated and tested in chapter 6.

Additionally, chapter 7 also provides a further contribution to knowledge. All four of the case studies in chapter 7 are contributions to knowledge in their own right as they measure performance in professional football clubs in a way that has never previously been done before. Chapter 7 ensures like-for-like comparisons within the results owing to the fact that the data has been analysed within the PAM. The approach undertaken in chapter 7 is better than using the raw data found in financial statements as it offers a more objective, scientific approach to analysis. The link between chapters 6 and 7 is one of the greatest strengths of the thesis. The formation of the PAM provides a contribution to knowledge as an original approach to measuring performance in professional football and the headline findings outlined in chapter 6 provide new information in relation to the performance of English football league clubs during the last 20 years. Chapter 7 complements chapter 6 by focusing on the current issues in English football and analysing them within the PAM. Chapter 7 provides a more concentrated analysis focused on a select number of clubs in line with the theme of each case study. Each case study provides a contribution in the area and into specific topics such as the foreign ownership phenomenon (previously researched by Walters and Hamil, 2010 and Wilson, Plumley and Ramchandani, 2013), the effect of promotion and relegation in English football and the structure of sports leagues in North America and Europe (previously researched by Hoehn and Szymanski, 1999; Kesenne, 2007; Szymanski, 2007 and Vrooman, 2007) and the changing nature of European professional team sports (previously researched by Andreff, 2007, 2011; Buraimo, Simmons and Szymanski, 2006 and Dietl and Franck, 2007).

Chapter's 6 and 7 have outlined a further contribution to knowledge in other recognised areas of literature that surround financial performance in professional team sport. Most notably, this contribution to knowledge is closely related to the 'peculiar economics of professional team sports' and the context of profit versus utility maximisation. In recent years there has been a considerable amount of literature related to this topic (see Dobson and Goddard, 2011; Downward and Dawson, 2000 and Gratton and Taylor, 2000 for example) and the findings of Chapters 6 and 7 further contribute to this growing body of literature. Indeed, one of the main findings of the thesis is that there is actually a consistent movement towards utility maximising principles for a number of clubs in the thesis, even those owned by American investors who may follow profit maximising techniques in the sports that they are franchise owners in over in America. This could arguably even itself out over time and it would interesting to revisit the thesis in years to come once regulations such as FFP have been fully implemented. Of more concern, is the fact that the majority of clubs in the thesis showed signs of neither profit nor utility maximisation and instead can be classed as having poor financial and poor sporting performance when ranked against other clubs in the industry. A number of concerns have been highlighted throughout chapters 6 and 7 with regards to these clubs and the implications for them in a modern day football era that involves new regulations such as FFP.

The thesis therefore has implications for the management of football clubs. Football clubs can use the PAM to compare how they are performing in line with their closest competitors. The PAM provides a new holistic measure of overall performance by combining variables and football clubs can use the PAM in addition to regulations set out by UEFA such as FFP. The use of the PAM over a longitudinal time period, as in this thesis, would allow football clubs to track their overall performance over time, and could possibly help indicate periods of growth and decline. As a result, football clubs could implement actions to deal with any problems that occur both on and off the pitch in relation to the scores derived from the PAM in relation to their competitors. It is clearly stated in the literature (e.g. Dobson and Goddard, 2011) that football clubs need competition from other football clubs to survive in order to produce a sellable product on the pitch. Using the PAM would allow football clubs to see how close or how far away from their competitors they are in relation to a number of different variables.

Furthermore, the PAM might also be useful to governing bodies, in this case namely the Football Association (FA), EPL and UEFA in relation to setting and/or implementing policy. The PAM combines variables to provide a holistic measure of performance and governing bodies could look to set their own 'benchmark' levels for some of the variables used in the PAM in an attempt to bring clubs closer together in a performance sense. Clearly, this would work in line with the principles of the break-even assumption of FFP as under this principle all clubs should be recording a profit figure of at least zero or above. Similarly, there is a possibility to bring revenues closer together by introducing components of the North American model for professional team sports such as revenue sharing. This is also an option for UEFA when considering the revenue distributions from competitions such as the Champions League and Europa League. The thesis, and in particular case study 1, also has implications for governance in relation to the ownership of professional football clubs in England and policy setters could also use the findings of this thesis and the model itself when considering the regulations surrounding the 'fit and proper persons' test which all football club owners in England must pass before they can acquire control of a club.

The advancement of theoretical knowledge in the field of literature surrounding this topic is also present in the publications by the author on this topic that have been written concurrent to this thesis (all peer reviewed publications are outlined in the prefixes to this thesis). The author has previously published work in this area in peer reviewed journals (see Plumley, Ramchandani and Wilson, in press; Wilson, Plumley and Ramchandani, 2013). Additionally, the author has presented previous work, including elements of this thesis, at international conferences which are also subject to a peer review process (see Plumley and Wilson, 2013, 2012; Wilson and Plumley, 2013, 2012, 2011, 2010, 2009). The author anticipates a further two publications that will be directly linked to this thesis with scope for further articles related to the subject area in future years.

8.3 Strengths of the thesis

The main strength of the thesis is linked to the advancement of theoretical knowledge. The thesis has contributed to the area of performance measurement in professional team sports by producing an original approach to performance measurement in professional football. One of the main gaps identified in the literature review was that there is no definitive list of variables that should be used to measure the performance of football clubs and that these variables had not previously been weighted in terms of their relevant importance. The PAM is the first model to consider the relationship between variables and has weighted the variables in a more objective manner than in previous research studies. Furthermore, in light of the formation of the PAM and the gap it fills in the literature, the analysis detailed in chapters 6 and 7 is a further strength of the thesis. The analysis builds on previous research as it is derived from a model which has been designed to fill a gap evident in the literature following the systematic review. The thesis has developed a statistically robust model that can be replicated and reproduced at any point in time and the author would be confident that if the thesis was to be replicated the outcome would follow the same pattern as the data analysis in this thesis. For example, the model could be utilised to analyse data further back than 1993 and also in years to come which means there is scope to re-visit the dataset at regular intervals of maybe 5 or 10 years for example. Whilst a researcher can never be certain that data is one hundred per cent reliable and valid, there is justification within this thesis that the study is comparing like-for-like in terms of the analysis. The indicators used are valid because they are proxies for sporting and financial health and the results are reliable owing to the formation of the model and the processes undertaken in chapter 6 to provide consistency in the approach to data analysis.

A further scientific approach was adopted at the literature review stage which is also one of the strengths of the thesis. The decision to consider a three stage approach to the literature, covering the theoretical background, narrative literature and a systematic review, subsequently means that the author can be confident that all relevant literature has been documented and that the systematic review process reduces the element of bias from the thesis. This process also allowed for gaps in the literature to be identified which contributed to the formation of the model in chapter 6.

It was stated in the rationale for the thesis that the study was timely in relation to the growing body of literature surrounding the subject and the intervention of governing bodies to introduce regulations to monitor financial performance. The aim of the thesis was to provide a new approach to performance measurement and the subsequent achievement of that aim alongside the objectives is one of the major strengths of the thesis. The thesis has detailed the process which has led to the aim being achieved and each chapter provides a contribution to knowledge in its own right as well as being an enabler that ultimately culminated in the achievement of the principle aim. The thesis offers new insights and areas of investigation into the topic of measuring performance in professional team sports and also more generally within the discipline of sport management and financial performance in sport.

8.4 Limitations of the thesis

One of the limitations of the thesis is linked to one of the main strengths. Prior to the production of the model, the thesis tested the assumption that financial homogeneity would be reasonably apparent within the annual reports of professional football clubs. A similar strategy was employed by Shibli and Wilkinson-Riddle (1997) in their investigation into the financial health of English county cricket clubs. However, a more rounded approach takes into account that these assumptions may be too ambitious and Owen (1994) further cited caution in this area:

> "Even more difficult to compare are two businesses in the same sector which are likely to have entirely different accounting methods." (cited in Shibli and Wilkinson-Riddle, 1997: 7)

After a comparison between the figures recorded by Deloitte in their *Annual Review of Football Finance* publications and the figures stated in the company accounts of clubs, the decision was chosen to utilise the data recorded by Deloitte. The reasons behind this decision were attributed to the fact that Deloitte liaise directly with the clubs, consider the legal entity that is registered as being at the 'top' of the ownership structure of each club and have adapted their calculations on a comparable basis over time to provide a more accurate measure of a football club's financial performance. However, recent publications by Deloitte only present a breakdown of the accounts of clubs in the EPL and the league directly below (The Championship). Therefore, if the thesis were to be replicated among other clubs in the English professional industry, it could only include clubs that have predominantly competed in the second tier of English professional football if the Deloitte data was used. Owing to the structure of the English football league this would only include 44 of the 92 clubs that compete across all four divisions.

For the thesis to be replicated to include clubs that have predominantly competed in League 1 and League 2 (the third and fourth tiers of English football respectively) a further test for financial homogeneity would have be conducted and the figures would have to be adapted from the annual reports of clubs to mirror the Deloitte reports before analysis can be undertaken. This would involve adjusting all the figures from the accounts of clubs to match the processes that Deloitte use and may require internal access to the club if the information is not available through secondary sources. However, there also an argument that the Championship, League 1 and League 2 are not comparable to the EPL in terms of the size and financial standing of each league. For example it would be unwise to compare a club such as Manchester United with a club such as Northampton Town as they will be competing under different financial and sporting structures.

A similar approach (adjusting the figures) would have to be taken if the thesis was to be replicated throughout other football clubs and leagues across Europe also. However, here the comparisons can be considered to be more like-for-like as the EPL's closest competitor in revenue terms at the present time is the Bundesliga in Germany followed by La Liga in Spain, Serie A in Italy and Ligue 1 in France (Deloitte, 2013). Clubs competing in these leagues will operate under similar revenues and costs and many will compete against each other in the Champions League (UEFA's flagship European competition). However, a limitation of this approach would be the accounting principles and practice that are present in other European countries. It has already been documented in chapter 2 that different countries operate under different accounting policies and this would have to be taken into account were any study across European leagues to be considered (e.g. Nobes and Kvaal, 2010).

A further limitation of the thesis is reflected in the methodological choices made. The interpretation of annual reports and the analysis of financial performance is an extremely fruitful research tool that can provide information about the financial health of the organisation (Wilson, 2011). However, financial analysis is an advantageous indicator of past performance and can become outdated quickly. Subsequently, the findings of this thesis are not the best indicator of future performance and the thesis cannot offer definitive evidence as to how the clubs studied will continue to perform in the future. Nonetheless, the longitudinal aspect of data analysis in the thesis offers insights into the trends of the industry and previous trends are often used as a predictor for future performance in organisations. Furthermore, as previously suggested, the analysis could be re-visited at different points in time to reflect on how club performance has changed since the completion of this thesis.

8.5 Recommendations and Future Research Direction

The literature review concluded that, when analysing financial performance, it is increasingly difficult to generalise across industries because businesses and industries operate under different financial constraints and accounting principles. It therefore became justifiable for this thesis to focus on one industry (e.g. the English football industry) and one league within this industry (e.g. the EPL). Notwithstanding this, the contextual background of the thesis highlighted that the financial problems evident in English football clubs are not exclusively to the UK and are also apparent throughout European football more generally (see Andreff, 2007; Ascari and Gagnepain, 2007; Barros, 2006; Buraimo, Simmons and Szymanski, 2006; Dietl and Franck, 2007; Dimitropoulos, 2010). A logical argument for future research is therefore to examine the performance of other European leagues and European clubs within the model in an attempt to provide comparisons and benchmarks across a wider dataset. Admittedly, there would be subjectivity attached to such an endeavour. The governing structure and attached regulations differ throughout other European countries (see section 3.3.4, p.80) and the way in which financial information is reported will also differ. Accounting policies and regulations will comprise of a combination of GAAP and IFRS in other European countries (e.g. Nobes and Kvaal, 2010) which would make like-for-like comparisons increasingly difficult. Nonetheless, if a standardised approach could be deduced to include other European countries and clubs, this would provide a useful expansion of the thesis and its model. There is also potential for a collaborative approach here with institutions from different countries collecting the data on clubs within that particular country and then combining the results and discussion.

A more feasible future research direction would be to compare findings from the model across other clubs in English football (in the Football League) and indeed other professional team sports. This could again be facilitated to focus primarily on sports within the UK, where the data is more readily available and is consistent across all organisations in line with accounting regulations in the UK and GAAP. Examples of sports that could be studied include cricket, rugby union and rugby league. The PAM may require some small changes to account for the differences in the sports in terms of financial and sporting measures but a replicable study could be adapted to fit with these sports. For example, sports such as cricket, rugby union and rugby league will all report revenue, profit/(loss), net assets/(liabilities), net funds/(debt) and wage costs in their financial accounts which means they are replicable within the PAM. Furthermore, all these sports will be replicable with the sporting indicators (league position, total game variance and attendance spread) as well. A more challenging comparison would be between the European model of professional team sports and the North American model focusing on the dominant sports in the America such as ice hockey, basketball, American football and baseball. Once again, access to the data may prove problematic unless the researchers were based in that country and even then there may be inconsistencies in the accounting frameworks of the two continents and the way in which financial information is collated and reported owing to the differences in UK and US GAAP (see section 2.2, p.19). Furthermore, it is acknowledged that the nature of the thesis is largely European based. Subsequently, at the present time, comparisons between UK and American sports will prove difficult which does pose implications for future research. Notwithstanding this, there is still considerable scope for future research avenues within the UK and Europe firstly following the findings of this thesis.

One of the main advancements to theoretical knowledge made by the thesis is within the literature surrounding the 'peculiar economics of professional team sports' and profit versus utility maximisation. Indeed, chapter 6 commented on the nature of competitive balance in the EPL against some of the major sports in the America through superficial analysis and it would be interesting to analyse and examine the nature of competitive balance and profit and utility maximisation in English professional football compared with the most popular team sports in America over a longer period of time.

8.6 Concluding Comments

This thesis provides a new approach to performance measurement in professional team sports that incorporates a number of financial and sporting variables that can be used for intra-industry comparisons. Prior to this thesis, there was no set model evident in previous literature that considered the relationship between variables and the weighting factors applied to such variables. It is clear from the analysis in chapter 2 that there is a framework in place for financial reporting in the UK under GAAP. However, after the completion of chapters 3 and 4 it became apparent that there was no defined framework for measuring both financial and sporting performance in professional football. Previous research studies instead opted to select their own variables at their own discretion. Subsequently, the formation of the PAM in chapter 6 adds progression in the area of performance measurement in professional team sports. It is the first of its kind to be derived through scientific practices and to consider the relationship between variables and their respective weighting factors. It is the formation of the PAM that is the biggest contribution to knowledge of the thesis.

Furthermore, the formation of the PAM has also led to new insights into current issues and topics within the English football industry. For example, the thesis has furthered the discussion surrounding foreign ownership in English football, highlighting that it generally leads to an upturn in on-pitch performance and a decline in financial performance. This builds on the work of Gerrard (2005), Walters and Hamil (2010) and Wilson, Plumley and Ramchandani (2013). The thesis also outlines the effect of promotion and relegation on English football clubs and compares the findings to the North American model for professional team sports. Whilst the thesis argues against the formation of an ESL (suggested as the open market solution by Vrooman (2007)) it does consider the benefits of the closed structure evident in North American team sports. The benefits of such a system are more pertinent when one considers the findings of case study 4 and the increases in wage costs and net debt across English football during the last decade, confirming the arguments put forward by Buraimo, Simmons and Szymanski (2006) and Drut and Raballand (2012) that there is a debt problem within English and European football. Lastly, the thesis has offered new insights into how English football clubs perform in relation to profit and utility maximisation and has evidenced a clear trend towards utility maximisation amongst English football clubs during the last 20 years.

In light of the apparent financial crisis in European football as evidenced in the literature review and the intervention by governing bodies such as UEFA and the implementation of their FFP regulations, the thesis provides progression in this area by measuring performance across a wider number of indicators and considering the relationship between those indicators. The thesis provides a scientifically derived model that can measure both the financial and sporting performance of professional football club and offer insights into their characteristics as a functioning organisation. The model can be used by clubs, governing bodies, researchers, analysts and practitioners and the model can also be used as a benchmarking tool for clubs to measure their performance against others. Furthermore, a model derived in such a way has never previously been documented and the narrative provided in this chapter has outlined where the thesis has contributed to knowledge from an academic perspective. It is suggested that there are many different ways to contribute to knowledge and Phillips and Pugh (2005) outline that a PhD can provide such a contribution in fifteen different ways. These include using already known material but with a new interpretation and adding to knowledge in a way that hasn't been done before (Phillips and Pugh, 2005). It is within this definition that this thesis positions itself with the thesis outlining a new approach to financial and sporting performance measurement that has never previously been considered.

Word Count: 87,148

Glossary

Accounting: identifying, collecting, measuring, recording, summarising and communicating financial information.

Accruals: the accruals basis of accounting requires the non-cash effects of transactions and other events to be reflected in the financial statements for the accounting period in which they occur and not during the period when the cash is paid or received.

Annual report: the financial statements, director's report, auditor's report and other information published by an organisation on an annual basis.

Asset: item or resource that has a value to the business and things that are used by the business and for the business.

Bartlett's test of sphericity: a test of the assumption of sphericity. This test examines whether a varaince-covariance matrix is proportional to an identity matrix. Therefore, it effectively tests whether the diagonal elements of the variance-covariance matrix are equal (i.e. group variances are the same) and whether the off-diagonal elements are approximately zero (i.e. the dependent variables are not correlated).

Break-even point: the level of activity at which there is neither a profit nor a loss. It can be measured in terms of units of production or sales revenue.

Cash flow statement: a financial summary of all of the cash receipts and payments over an accounting period.

Competitive balance: the situation in which no one business of a group of competing businesses has an unfair advantage over the others.

Conceptual framework: a constitution, a coherent system of interrelated objectives and fundamentals that can lead to consistent standards and that prescribes the nature, function and limits of financial accounting statements.

Confirmatory factor analysis: a version of factor analysis in which specific hypotheses about structure and relations between the latent variables that underlie the data are tested.

Consistency concept: similar items within a single set of accounts should be given similar accounting treatment, and the same treatment should be applied from one accounting period to the next for similar items so that one year's results are comparable to the next.

Factor analysis: a multivariate technique for identifying whether the correlations between a set of observed variables stem from their relationship to one or more latent variables in the data, each of which takes the form of a linear model.

Fair value accounting: the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Financial statements: the complete set of accounts. This will include the balance sheet (this shows the organisation's assets and liabilities), income statement (the profit and loss account) and the cash flow statement. Also included will be notes on the accounting policies used and significant activities.

Going concern: the information presented in the financial statements is prepared on the basis that the organisation will continue to operate for the foreseeable future.

Historical cost accounting: a measure of value used in accounting in which the price of an asset on the balance sheet is based on its nominal or original cost when acquired by the company.

Homogeneity: the quality or state of being homogeneous.

Income statement (P&L account): a statement showing the profits (or losses) recognised during a period. The profit is calculated by deducting expenditure (including charges for capital maintenance) from income.

Kaiser-Meyer-Olkin measure of sampling adequacy (KMO): the KMO can be calculated for individual and multiple variables and represents the ratio of the squared correlation between variables to the squared partial correlation between variables. The KMO varies between 0 and 1.

Liabilities: amounts owed by the business to people other than the owner. Normally classified as either payable within one year (current liabilities) (e.g. bank overdraft) or payable after one year (non-current liabilities) (e.g. longer-term bank loans).

Limited company: a company registered with the Registrar of Companies whose shareholders enjoy limited liability.

Liquidation: quite simply the process by which a limited company ceases to exist. It is a legal status rather than a financial position.

Loans: money borrowed or lent. In an organisation's accounts it normally means amounts borrowed, as amounts lent are usually called investments. Loans are normally arranged by banks and will be noted as long-term (non-current) liabilities.

Materiality concept: only items of significance are included in the financial statements. An item is significant if its omission or misrepresentation could influence the economic decisions of those using the financial statements.

Monopoly: the exclusive possession or control of the supply of or trade in a commodity or service.

Multivariate: means 'many variables' and is usually used when referring to analyses in which there are more than one outcome variable (MANOVA, principle component analysis etc.).

Non-parametric tests: a family of statistical procedures that do not rely on the restrictive assumptions of parametric tests. In particular, they do not assume that the sampling distribution is normally distributed.

Oligopoly: a state of limited competition, in which a market is shared by a small number of producers or sellers.

Operating profit: the profit of a business which is generated from its ordinary activities.

Parametric tests: a test that requires data from one of the large catalogue of distributions that statisticians have described.

Principal component analysis: a multivariate technique for identifying the linear components of a set of variables.

Profit maximisation: is the short run or long run process by which a firm determines the price and output level that returns the greatest profit.

Profit: a positive residue between sales income and total expenses for a financial period.

Prudence concept: states that revenue and profits are not anticipated but are recognised only when they are realised.

Reliability: the ability of a measure to produce consistent results when the same entities are measured under different conditions.

Separate determination: a clearly defined economics unit that is accounted for separately. An accounting entity can be either a business or subdivision of a business that engages in economic activities, has economic assets and resources that must be accounted, and is separate from the personal dealings of its owners.

Substance over form: is an accounting concept which means that the economic substance of transactions and events must be recorded in the financial statements rather than just their legal form in order to present a true and fair view of the affairs of the entity.

Test-retest reliability: the ability of a measure to produce consistent results when the same entities are tested at two different points in time.

Uncertainty of outcome: where competition is close to equal (i.e. either team in any one match has an equal chance of winning that match).

Univariate: means 'one variable' and is usually used to refer to situations in which only one outcome variable has been measured.

Utility maximisation: is a concept that, when making a purchase decision, a consumer attempts to get the greatest value possible from expenditure of least amount of money. The objective is to maximise the total value derived from the available money.

Validity: evidence that a study allows correct inferences about the question it was aimed to answer or that a test measures what it set out to measure conceptually.

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APPENDICES

Appendix 1: About the International Accounting Standards Committee (IASC)

Formation of the International Accounting Standards Committee

The International Accounting Standards Committee (IASC) was formed in 1973 through an agreement made by professional accountancy bodies from Australia, Canada, France, Germany, Japan, Mexico, the Netherlands, the United Kingdom and Ireland, and the United States of America. Additional sponsoring members were added in subsequent years, and in 1982 the sponsoring "members" of the IASC comprised all of the professional accountancy bodies that were members of the International Federation of Accountants (IFAC).

From its formation in 1973 until a comprehensive reorganization in 2000, the structure for setting International Accounting Standards was known as the International Accounting Standards Committee (IASC).

The International Accounting Standards Committee was essentially the structure, rather than a committee in the traditional sense of a group of people. There was no actual "committee" of that name.

Elements of the old IASC structure

Major components of the old IASC structure were:

- **IASC Board** – described below
- **Consultative Group** – an advisory body representing a wide range of international organizations with an interest in accounting
- **Standing Interpretations Committee (SIC)** – developed and invited public comment on interpretations of IASC Standards, subject to final approval by the IASC Board
- **Advisory Council** – oversight body (despite its name, the Advisory Council functioned more like the Board of Trustees of the current IFRS Foundation)
- **Steering Committees** – expert task forces for individual agenda projects.

About the IASC Board

The standard-setting board of the IASC was known as the IASC Board. The IASC Board had 13 country members and up to 3 additional organizational members who operated on a part-time, volunteer basis. Each member was generally represented by two "representatives" and one "technical advisor". The individuals came from a wide range of backgrounds – accounting practice, business (particularly multinational businesses), financial analysis, accounting education, and national accounting standard-setting. The Board also had a number of observer members (including representatives of IOSCO, FASB, and the European Commission) who participated in the debate but did not vote.

The IASC Board promulgated a substantial body of Standards, Interpretations, a Conceptual Framework, and other guidance that was adopted directly by many companies and that was looked to by many national accounting standard-setters in developing national accounting standards.

Moving to the new structure

After nearly 25 years of achievement, IASC concluded in 1997 that to continue to perform its role effectively, it must find a way to bring about convergence between national accounting standards and practices and high-quality global accounting standards. To do that, IASC saw a need to change its structure. In late 1997 IASC formed a Strategy Working Party to re-examine its structure and strategy. (Jacques Manardo, Deloitte Touche Tohmatsu Global Managing Partner-Strategic Clients, was a member of that group.)

The Strategy Working Party published its Report, in the form of a Discussion Paper, in December 1998. After soliciting comments, the Working Party published its *Final Recommendations* in November 1999.

The IASC Board approved the proposals unanimously in December 1999, and the IASC member bodies did the same in May 2000. A new IASB Constitution took effect from 1 July 2000. The standards-setting body was renamed the International Accounting Standards Board (IASB). It would operate under a new International Accounting Standards Committee Foundation (IASCF, now the IFRS Foundation).

Accordingly, from 1 April 2001, the standards-setting work of the IFRS Foundation was then conducted by the International Accounting Standards Board (IASB). The IFRS Interpretations Committee develops and solicits comment on interpretive guidance for applying Standards promulgated by the IASB, but the IASB must approve the Interpretations developed by IFRIC.

IASC Board message to the incoming IASB

At its December 2000 meeting, the IASC Board approved a statement to be transmitted to the new International Accounting Standards Board. The Statement comments on current work in progress and expresses some of Board's current thinking based on its work on these items and other discussions. The Board expressed a hope that its successor would continue work on the projects on:

- business combinations
- present value
- reporting financial performance
- insurance
- extractive industries
- financial instruments.

In addition, the Statement suggested the following new projects:

- a project on convergence of national and international standards
- a new 'improvements project' to deal with relatively minor matters in the existing IASC Standards
- share-based payments

- intangible assets
- narrative reporting outside the notes
- update the Framework and Preface to IAS
- special version of IAS for small enterprises
- review of IAS provisions relating to inflation accounting.

Sourced from Deloitte (online) at
http://www.iasplus.com/en/resources/ifrsf/history/resource25

Appendix 2: Monitoring requirements for UEFA FFP

Chapter 2: Monitoring requirements

Article 57 – *Scope of application and exemption*

1 All licensees that have qualified for a UEFA club competition must comply with the monitoring requirements, i.e. with the break-even requirement (Articles 58 to 63) and with the other monitoring requirements (Articles 64 to 68).
The following clubs are exempt from the break-even requirement:
a) a club that qualifies for a UEFA club competition on sporting merit and is granted special permission as defined in Article 15;
b) a licensee that demonstrates it has relevant income and relevant expenses (as defined in Article 58) below EUR 5 million in respect of each of the two reporting periods ending in the two years before commencement of the UEFA club competitions. Such an exemption decision is taken by the UEFA Club Financial Control Body and is final.

If a licensee's annual financial statements are denominated in a currency other than euros, then to determine whether it should be exempt or not from the breakeven requirement, the relevant figures must be converted into euros at the average exchange rate of the reporting period, as published by the European Central Bank or other appropriate source if the applicable rate is not available from the European Central Bank.

If the reporting period for the annual financial statements is greater or less than 12 months, then the threshold of EUR 5m (relevant income/relevant expenses) is adjusted up or down according to the length of the reporting period. The flexed threshold level is then compared to the licensee's relevant income and relevant expenses as appropriate.

I. BREAK-EVEN REQUIREMENT

Notion of **Article 58** – *relevant income and expenses*

Relevant income is defined as revenue from gate receipts, broadcasting rights, sponsorship and advertising, commercial activities and other operating income, plus either profit on disposal of player registrations or income from disposal of player registrations, excess proceeds on disposal of tangible fixed assets and finance income. It does not include any non-monetary items or certain income from non-football operations.

Relevant expenses is defined as cost of sales, employee benefits expenses and other operating expenses, plus either amortisation or costs of acquiring player registrations, finance costs and dividends. It does not include depreciation/impairment of tangible fixed assets, amortisation/impairment of intangible fixed assets (other than player registrations), expenditure on youth development activities, expenditure on community development activities, any other non-monetary items, finance costs directly attributable to the construction of tangible fixed assets, tax expenses or certain expenses from non-football operations.

Relevant income and expenses must be calculated and reconciled by the licensee to the annual financial statements and/or underlying accounting records, i.e. historic, current or future financial information as appropriate.

Relevant income and expenses from related parties must be adjusted to reflect the fair value of any such transactions.

Relevant income and expenses are further defined in Annex X.

Article 59 – ***Notion of monitoring period***
A monitoring period is the period over which a licensee is assessed for the purpose of the break-even requirement. As a rule it covers three reporting periods:
a) the reporting period ending in the calendar year that the UEFA club competitions commence (hereinafter: reporting period T), and
b) the reporting period ending in the calendar year before commencement of the UEFA club competitions (hereinafter: reporting period T-1), and
c) the preceding reporting period (hereinafter: reporting period T-2). As an example, the monitoring period assessed in the licence season 2015/16 covers the reporting periods ending in 2015 (reporting period T), 2014 (reporting period T-1) and 2013 (reporting period T-2).

By exception to this rule, the first monitoring period assessed in the licence season 2013/14 covers only two reporting periods, i.e. reporting periods ending in 2013 (reporting period T) and 2012 (reporting period T-1).

Article 60 – ***Notion of break-even result***
The difference between relevant income and relevant expenses is the breakeven result, which must be calculated in accordance with Annex X for each reporting period.

If a licensee's relevant expenses are less than relevant income for a reporting period, then the club has a break-even surplus. If a club's relevant expenses are greater than relevant income for a reporting period, then the club has a breakeven deficit.

If a licensee's financial statements are denominated in a currency other than euros, then the break-even result must be converted into euros at the average exchange rate of the reporting period, as published by the European Central Bank.

The aggregate break-even result is the sum of the break-even results of each reporting period covered by the monitoring period (i.e. reporting periods T, T-1 and T-2).

If the aggregate break-even result is positive (equal to zero or above) then the licensee has an aggregate break-even surplus for the monitoring period. If the aggregate break-even result is negative (below zero) then the licensee has an aggregate break-even deficit for the monitoring period.

In case of an aggregate break-even deficit for the monitoring period, the licensee may demonstrate that the aggregate deficit is reduced by a surplus (if any) resulting from the sum of the break-even results from the two reporting periods prior to T-2 (i.e. reporting periods T-3 and T-4).

Notion of **Article 61** – ***acceptable deviation***
The acceptable deviation is the maximum aggregate break-even deficit possible for a club to be deemed in compliance with the break-even requirement as defined in Article 63.

The acceptable deviation is EUR 5 million. However it can exceed this level up to the following amounts only if such excess is entirely covered by contributions from equity participants and/or related parties:
a) EUR 45 million for the monitoring period assessed in the licence seasons 2013/14 and 2014/15;
b) EUR 30 million for the monitoring period assessed in the licence seasons 2015/16, 2016/17 and 2017/18;
c) a lower amount as decided in due course by the UEFA Executive Committee for the monitoring periods assessed in the following years.

Contributions from equity participants and/or related parties (as specified in Annex X D) are taken into consideration when determining the acceptable deviation if they have occurred and been recognised:
a) in the financial statements for one of the reporting periods T, T-1 or T-2; or
b) in the accounting records up to 31 December of the year of the reporting period T.

The onus is on the licensee to demonstrate the substance of the transaction, which must have been completed in all respects and without any condition attached. An intention or commitment from owners to make a contribution is not sufficient for such a contribution to be taken into consideration.

If contributions from equity participants and/or related parties occurring up to 31 December of the year in which the UEFA club competitions commence are recognised in a club's reporting period T+1 and have been taken into consideration to determine the acceptable deviation in respect of the monitoring period (T-2, T-1 and T) assessed in the licence season commencing in that same calendar year, then for later monitoring periods the contributions will be considered as having been recognised in reporting period T.

Article 62 – *Break-even information*
By the deadline and in the form communicated by the UEFA administration, the licensee must prepare and submit:
a) the break-even information for the reporting period T-1;
b) the break-even information for the reporting period T-2, if not already previously submitted;
c) the break-even information for the reporting period T, if it has breached any of the indicators defined in paragraph 3 below.
The break-even information must:
a) concern the same reporting entity as that for club licensing as defined in Article 46;
b) be approved by management, as evidenced by way of a brief statement confirming the completeness and accuracy of the information, and signature on behalf of the executive body of the licensee.
If a licensee exhibits any of the conditions described by indicators 1 to 4, it is considered in breach of the indicator:
i) Indicator 1: *Going concern*
The auditor's report in respect of the annual financial statements (i.e. reporting period T-1) and/or interim financial statements (if applicable) submitted in accordance with Articles 47 and 48 includes an emphasis of matter or a qualified opinion/conclusion in respect of going concern.
ii) Indicator 2: *Negative equity*

The annual financial statements (i.e. reporting period T-1) submitted in accordance with Article 47 disclose a net liabilities position that has deteriorated relative to the comparative figure contained in the previous year's annual financial statements (i.e. reporting period T-2), or the interim financial statements submitted in accordance with Article 48 disclose a net liabilities position that has deteriorated relative to the comparative figure at the preceding statutory closing date (i.e. reporting period T-1).
iii) Indicator 3: *Break-even result*
The licensee reports a break-even deficit as defined in Article 60 for either or both of the reporting periods T-1 and T-2.
iv) Indicator 4: *Overdue payables*
The licensee has overdue payables as of 30 June of the year that the UEFA club competitions commence as further defined in Articles 65 and 66.

In addition, the UEFA Club Financial Control Body reserves the right to ask the licensee to prepare and submit additional information at any time, in particular if the annual financial statements reflect that:
a) employee benefits expenses exceed 70% of total revenue; or
b) net debt exceeds 100% of total revenue.

Fulfilment of* Article 63 *– the break-even requirement
The break-even requirement is fulfilled if no indicator (as defined in Article 62(3)) is breached and the licensee has a break-even surplus for reporting periods T-2and T-1.

The break-even requirement is fulfilled, even if an indicator (as defined in Article 62(3)) is breached, if:
a) the licensee has an aggregate break-even surplus for reporting periods T-2, T-1 and T; or
b) the licensee has an aggregate break-even deficit for reporting periods T-2, T-1 and T which is within the acceptable deviation (as defined in Article 61) having also taken into account the surplus (if any) in the reporting periods T-3 and T-4 (as defined in Article 60(6)).
The break-even requirement is not fulfilled if the licensee has an aggregate break-even deficit for reporting periods T-2, T-1 and T exceeding the acceptable deviation (as defined in Article 61) having also taken into account the surplus (if any) in the reporting periods T-3 and T-4 (as defined in Article 60 (6)).

Source: UEFA Club Licensing and Financial Fair Play Regulations Edition 2012.

Appendix 3 - Justification of Financial Ratios and Ratio Analysis

Growth

The growth of a business is vital to make sure it has a sustainable future. It is important that a business can continue, develop and succeed to meet the ever-changing demands of consumers in the market place (Wilson, 2011). Growth is normally measured under three aspects; growth in turnover, growth in profit and growth in fixed assets. Normally, these are measured on a year by year basis to reflect the current business performance of the organisation. The definition of each aspect is also relatively straightforward. Growth in turnover is simply measured by the businesses' increase in sales. Growth in profit indicates the increases or decreases in profit although this measure is dependent on a business keeping its costs under control whilst growth in fixed assets quite simply indicates an increase in assets which will also have a subsequent effect on businesses' liquidity ratios and overall financial position. It must also be noted here that increases or decreases in intangible fixed assets will be more relevant to a professional football club as players, which are arguably the most notable assets to a club, are classed under intangible rather than fixed assets.

Profitability

Profitability ratios are used to review the operating performance of the business. Profitability ratios are important as users of accounts will want to know how much profit a business has made, and then compare it with previous periods or other entities (Dyson, 2004). Businesses generally exist with the primary purpose of creating wealth for owners and profitability ratios provide an insight to the degree of success in achieving this purpose (McLaney and Atrill, 2008). The two most common ways to measure profit is through the gross profit ratio and operating (net) profit ratio. Gross profit is simply equivalent to revenue minus the cost of sales (Johal and Vickerstaff, 2012) whereas operating profit is the profit made after expenses have been deducted. Operating profit is often regarded as the most appropriate measure of operational performance, when used as a basis of comparison, because differences arising from the way in which a business run will not influence the measure (McLaney and Atrill, 2008).

Liquidity

It is vital to the survival of a business that there are sufficient liquid resources available to meet maturing obligations. Principally, this equates to amounts owing that must be paid in the near future (McLaney and Atrill, 2008). Liquidity ratios consider the settlement of creditors with some urgency and the calculation of liquidity ratios provides an insight into the present cash solvency of the firm and the firm's ability to remain solvent in the event of adversity (Van Horne and Wachowicz, 2005). Generally, there are three ratios considered when calculating liquidity. These are the current ratio, quick ratio, and cash ratio.

Firstly, the current ratio is an indicator of the company's ability to meet its short term liabilities out of the equivalent assets (Johal and Vickerstaff, 2012). It is an important ratio to anyone who is supplying short term funds to the business such as banks and trade creditors. A recommended ratio is 1:1 meaning that for every £1 of liabilities, a company has £1 of assets to cover it. This is despite some academics arguing that the current assets ratio must be at least 2:1. However, there is no evidence to suggest that this is a necessary relationship. The term 'current' means receivable or payable within the next twelve months (Dyson, 2004). It is important to note however that current ratios tend to be sector-specific, that is, different business sectors are likely to have different 'typical' current ratios. For example, what is considered a normal or typical current ratio for a football club is likely to differ from that of a firm in the retail or manufacturing sectors (McMenamin, 1999).

It is important to take care when using such ratios and a number of problems stem from the use of the current ratio as a predictor of financial stability. First, since current assets include stock and trade debtors as well as cash, an element of subjectivity is introduced into this ratio by methods of valuing stocks and by the assessment of the likelihood of bad debts. Second, an efficient business may be able to reduce stocks and debtor levels without affecting its financial stability, which is secured by a high rate of funds flowing from current operations. Hence, its current ratio may conceivably be relatively low, and it will still be a viable concern (Glautier and Underdown, 2001).

The quick ratio (acid ratio) on the other hand ignores stock on the grounds that if a company was forced to pay up, it would not have time to convert stock into cash (Ramsden, 1998). The acid test ratio again states that a company should have £1 of liquid assets for every £1 of current liabilities. Generally the ratio should not fall below one. However, some accounts are prepared on a prudent basis and amounts owed to current creditors at the end of the financial year will be done at different times in the next financial year (Collis and Hussey, 2007). This is particular relevant when considering professional football clubs where payments for certain transactions such as transfer fees are staggered over different periods of time. Finally, the cash ratio uses only the company's cash in hand and bank against all current liabilities. The cash ratio has been omitted from this analysis due to the nature of the football business. Clubs - as stated in their accounts - hold very little cash at bank and in hand.

Return on Capital Employed

ROCE is sometimes referred to as the 'prime ratio' and is extremely important as it provides an immediate summary with regards to the management's effectiveness in generating revenue and controlling costs which is particular relevant when running a professional sports team (Wilson, 2011). ROCE does not measure the efficiency with which available resources were used, but rather the residual return to the owners on their investment in the business (Glautier and Underdown, 2001). ROCE is vitally important as businesses tend to exist with the objective of making money for its owners and this ratio provides answers as to whether such objectives have been met or not. Ultimately, the higher the ROCE, the greater are the potential rewards for shareholders (Ramsden, 1998). However, it is often difficult to define ROCE as there are many different views on what is meant by the term. It is often necessary to begin by first defining 'capital employed' and subsequently how one would measure the 'return' that it has earned. Attached to this is the importance of the 'cost' of capital and how the owner values the amount of money, time and resources they have put into the business.

Defensive Positioning

Risk factors as adapted for a football business focus around debt and borrowings highlighting, in business terminology, the defensive positioning of an organisation. Two key ratios are usually associated with defensive positioning, particularly in academic texts; debt and gearing. The debt ratio effectively shows the extent to which clubs are controlled by creditors illustrating the ratio of total debts to total assets. A high debt ratio indicates that creditors are funding most of the firm's assets which consequently means if creditors want repaying, assets may have to be sold. For football clubs, this may mean selling players in order to pay creditors which could then have a negative effect on performance on the pitch. A safe debt ratio is suggested to be around 50% whilst a ratio over 75% is considered cause for concern (Wilson, 2011). However, it is not unusual for football clubs to be heavily debt financed due to the way in which many are now run. For example, many clubs rely on bank loans and overdrafts and some rely on the benefaction method previously outlined by Beech (2010).

The gearing ratio is used to measure how a certain organisation is financed. It also refers to how much of the capital is made up of debt finance. This is also relevant to the clubs in question as much of certain club's cash is debt owed to the current owner of the club (Wilson, 2011). The level of gearing also has an important effect on the degree of risk associated with a business (McLaney and Atrill, 2008). Gearing ratios tend to highlight the extent to which the business uses borrowings and some of these borrowings such as bank overdrafts and any current portions of long-term debt represent interest bearing finance (Reid and Myddelton, 2005). This is again relevant when focusing on football clubs as many clubs rely heavily on large bank overdrafts to balance books. There are four key indicators that are typically associated with risk and these are outlined below.

1. Wages/Turnover
2. External Borrowings
3. Total Borrowings
4. Debt

Wages/Turnover

The wages/turnover ratio provides an indication of the health of a club's operating model and is commonly used as a key performance indicator for football clubs. UEFA have worked closely with Deloitte in recent years and have made the wages/turnover ratio an important element of their FFP regulations. Subsequently, Deloitte and UEFA suggest that a wages/revenue ratio of 70% is an indicative threshold, with clubs who consistently exceed this level likely to require funding outside of their revenue to sustain their operations (Deloitte, 2012). This 70% level will be used by UEFA as part of FFP, with clubs exceeding this level potentially facing additional monitoring and information requests.

External Borrowings

External borrowings consider bank overdrafts plus any bank loans as a proportion of total net assets. A high ratio indicates a high dependency on borrowings which may restrict the club's future lending capacity. It may also mean a high cost of servicing the debt through interest payments. External borrowings can be related to the gearing principle which measures how an organisation is financed and how much of the capital in a business is made up of debt finance. Debt finance is attractive to organisations because it is relatively cheap and there are tax benefits (interest payments are allowable tax expenses) but the interest payments (and the capital of the loan) are contractual obligations. That is that the interest and the loan itself have to be paid irrespective of how the business is performing.

Total Borrowings

Total borrowings accounts for bank loans and bank overdrafts but also takes into consideration related party borrowings, often very important to football clubs due to the amounts of money many clubs have held in parent or partner companies. Subsequently, the total borrowings figure is arguably a better indicator in relation to borrowings as it provides a more holistic measure of how much a business relies on money from associated parties.

Debt

The debt ratio is one of the most simple and commonly used ratios that is used to assess the overall debt levels of an organisation which highlights the extent to which creditors have power over an organisation. It accounts for all areas of debt within a business and divides this by the total assets of the company. Whilst 'safe' debt levels have been suggested in academic literature (see Wilson, 2011), it is also important to consider the specific context of the organisation and the industry within which it operates (Wilson, 2011).

Appendix 4 - Full Dataset for 21 English Football League Clubs 1993-2011

Season End 1993 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	15,342	4	2,483	3	6,295	4	-5757	19	45%	7	10	8	14	2	11,487	10	6,923
Aston Villa	10,175	7	-191	12	4,801	6	2409	3	44%	5	2	2	6	7	21,943	21	4,498
Blackburn	6,305	13	-6,366	21	-2,508	19	-7258	21	82%	20	4	3	9	3	6,749	3	5,168
Bolton	2,396	19	31	11	363	16	-191	6	61%	14	48	20	7	6	17,584	17	1,472
Charlton	1,918	20	-601	16	-4,767	20	-5085	17	95%	21	34	18	1	16	8,740	5	1,818
Chelsea	7,981	11	-1,160	20	3,110	12	-201	7	57%	11	11	9	4	13	12,418	11	4,529
Coventry	4,592	15	-364	13	1,255	15	-3056	12	65%	16	15	11	0	20	13,955	13	2,989
Everton	7,994	10	987	8	3,702	9	-3810	14	57%	11	13	10	5	10	21,804	20	4,519
Fulham	1,094	21	-823	18	-1,650	18	-1194	10	67%	17	58	21	0	21	5,858	2	735
Leeds	13,324	5	510	9	-6,841	21	-7255	20	39%	4	17	12	8	5	8,392	4	5,253
Leicester	4,775	14	-445	15	3,556	10	-411	8	52%	9	28	17	3	14	9,403	7	2,480
Liverpool	17,496	2	1,607	4	4,621	7	2560	2	44%	5	6	4	9	3	15,045	15	7,663
Man City	8,376	9	1,059	7	3,838	8	-4151	15	47%	8	9	7	5	10	17,612	18	3,966
Man Utd	25,177	1	4,202	1	15,445	2	2843	1	25%	1	1	1	5	10	10,957	9	6,182
Middlesbrough	3,968	17	-1,020	19	-1,358	17	-642	9	71%	18	21	14	2	15	10,173	8	2,821
New castle	8,743	8	-374	14	3,195	11	-5027	16	53%	10	23	15	6	7	4,224	1	4,662
Sheffield Wednesday	12,806	6	1,370	6	5,234	5	-1848	11	37%	3	7	5	18	1	17,750	19	4,702
Southampton	4,307	16	1,580	5	1,485	14	506	5	78%	19	18	13	1	16	8,827	6	3,360
Sunderland	3,806	18	-802	17	2,757	13	537	4	64%	15	43	19	1	16	14,784	14	2,448
Tottenham	16,594	3	3,361	2	22,528	1	-3422	13	33%	2	8	6	6	7	13,611	12	5,405
West Ham	6,571	12	174	10	7,361	3	-5406	18	57%	11	24	16	1	16	17,073	16	3,764

Season End 1996 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	20,975	5	-3,611	14	10,035	4	-11738	15	48%	6	5	5	6	9	3,804	4	10,062
Aston Villa	18,865	6	50	5	7,517	7	-271	3	41%	2	4	4	10	3	15,403	19	7,654
Blackburn	16,567	9	-8,392	18	4,969	8	-22118	20	65%	17	7	7	9	4	7,537	9	10,844
Bolton	6,742	19	208	4	355	13	-473	4	71%	20	20	17	5	14	5,165	5	4,805
Charlton	3,691	20	-1,163	7	2,038	11	-4199	8	68%	19	26	20	6	9	6,666	7	2,528
Chelsea	15,948	10	-2,954	12	21,749	3	-9799	13	58%	12	11	10	7	6	14,059	18	9,218
Coventry	8,965	16	-8,545	19	-6,173	18	-12000	16	65%	17	16	14	4	16	10,848	16	5,783
Everton	17,004	8	-7,810	17	-2,952	17	-14571	18	58%	12	6	6	7	6	10,118	15	9,913
Fulham	1,543	21	-560	6	-2,796	16	-2647	6	77%	21	85	21	6	9	8,036	12	1,192
Leeds	18,751	7	-7,073	16	-13,519	19	-11192	14	54%	11	13	12	15	1	13,724	17	10,071
Leicester	9,465	15	-1,628	9	2,368	10	-4506	9	58%	12	25	19	3	18	8,775	13	5,449
Liverpool	27,396	3	-4,882	15	8,405	6	-3171	7	48%	6	3	3	12	2	6,757	8	13,234
Man City	12,698	12	-3,168	13	456	12	-13899	17	51%	9	18	16	5	14	7,819	11	6,425
Man Utd	53,316	1	15,399	1	40,762	1	1536	2	25%	1	1	1	8	5	21,960	21	13,275
Middlesbrough	14,024	11	-12,195	20	-17,422	20	-14597	19	46%	4	12	11	6	9	2,129	3	6,488
New castle	28,970	2	-23,957	21	-41,064	21	-23379	21	49%	8	2	2	4	16	364	1	14,311
Sheffield Wednesday	10,078	14	-2,254	10	3,763	9	-8338	12	64%	16	15	13	2	21	17,872	20	6,412
Southampton	7,477	17	-1,356	8	-295	15	-2120	5	42%	3	17	15	7	6	2,046	2	3,151
Sunderland	7,166	18	-2,368	11	-66	14	-7429	11	62%	15	21	18	3	18	9,745	14	4,451
Tottenham	25,589	4	2,912	2	37,436	2	8987	1	47%	5	8	8	6	9	7,597	10	12,057
West Ham	11,995	13	653	3	9,518	5	-6051	10	51%	9	10	9	3	18	5,823	6	6,138

Season End 1997 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	27,158	5	-1,575	10	8,767	13	-12947	18	56%	13	3	3	5	8	4,803	8	15,279
Aston Villa	22,079	8	-3,926	16	21,950	4	12259	3	46%	6	5	5	5	8	12,613	19	10,070
Blackburn	14,302	14	8,093	3	13,694	8	-26971	21	100%	21	13	11	2	16	11,262	18	14,337
Bolton	7,653	19	-4,009	17	-2,939	17	-12216	17	80%	20	21	18	5	8	9,582	15	6,159
Charlton	4,330	20	1,763	7	8,364	14	569	8	68%	17	35	20	3	14	6,329	11	2,963
Chelsea	23,729	6	-376	8	47,920	2	-7003	16	63%	16	6	6	7	6	6,294	10	14,873
Coventry	12,265	17	-10,451	21	-16,387	20	-22707	20	68%	17	17	15	5	8	7,814	14	8,396
Everton	18,882	10	-2,890	11	10,183	11	-4378	13	52%	9	15	13	1	21	9,809	16	9,787
Fulham	2,108	21	-504	9	-3,545	18	2885	7	72%	19	70	21	2	16	7,056	12	1,527
Leeds	21,802	9	-6,277	19	3,601	15	-4164	12	56%	13	11	10	4	12	14,121	20	12,312
Leicester	17,320	11	-3,594	13	-1,631	16	-6394	14	51%	8	9	8	10	5	3,572	5.	8,914
Liverpool	39,153	3	8,010	4	13,060	9	4243	6	37%	2	4	4	12	3	4,766	7	14,599
Man City	12,727	16	-3,891	15	12,017	10	-6906	15	57%	15	34	19	2	16	7,650	13	7,200
Man Utd	87,939	1	27,577	1	72,418	1	16560	2	25%	1	1	1	13	1	1,136	4	21,847
Middlesbrough	22,502	7	-7,099	20	-22,601	21	-16355	19	50%	7	19	17	13	1	731	2	11,332
New castle	41,134	2	8,302	2	16,174	6	28883	1	43%	3	2	2	11	4	436	1	17,487
Sheffield Wednesday	14,335	13	-3,242	12	21,131	5	5650	5	53%	11	7	7	3	14	22,553	21	7,571
Southampton	9,238	18	-3,624	14	-4,782	19	-389	9	52%	9	16	14	6	7	938	3	4,776
Sunderland	13,415	15	3,080	6	15,855	7	-3495	11	43%	3	18	16	2	16	3,931	6	5,703
Tottenham	27,874	4	7,573	5	43,868	3	5712	4	43%	3	10	9	2	16	10,097	17	12,057
West Ham	15,256	12	-5,495	18	9,797	12	-1657	10	54%	12	14	12	4	12	5,959	9	8,298

Season End 1998 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	40,391	5	7,086	2	12,834	8	10927	4	54%	7	1	1	14	2	945	5	21,882
Aston Villa	31,769	6	3,734	5	28,857	4	15,416	3	39%	2	7	7	11	4	10,029	14	12,388
Blackburn	19,356	11	2,399	6	9,995	13	-25752	20	98%	20	6	6	4	11	11,461	17	19,035
Bolton	15,711	17	-2,988	16	3,070	18	-18665	17	61%	13	18	16	2	15	2,297	6	9,625
Charlton	5,770	20	2,010	9	11,441	10	-3087	10	79%	19	24	19	2	15	5,965	9	4,530
Chelsea	47,482	3	1,010	11	64,574	2	-46376	21	54%	7	4	4	14	2	6,013	10	25,431
Coventry	17,400	15	-3,332	17	-18,715	20	-25178	19	60%	12	11	10	6	9	7,145	11	10,423
Everton	22,665	10	2,297	7	11,129	12	-4678	11	61%	13	17	15	1	20	11,946	19	13,845
Fulham	3,892	21	-8,322	21	-9,486	19	-12112	15	157%	21	50	21	4	11	11,883	18	6,117
Leeds	28,265	8	328	13	12,723	9	-8438	14	56%	10	5	5	5	10	11,017	16	15,858
Leicester	19,210	12	-2,127	15	8,294	15	2990	5	53%	6	10	9	3	13	3,146	7	10,200
Liverpool	45,457	4	-3,753	18	19,454	6	964	6	66%	15	3	3	8	6	9,827	13	30,128
Man City	15,272	18	-6,808	20	6,550	16	-13068	16	72%	18	42	20	1	20	7,982	12	11,054
Man Utd	87,875	1	27,839	1	78,215	1	18779	2	31%	1	2	2	11	4	298	1	26,897
Middlesbrough	18,685	14	1,337	10	-23,760	21	-23553	18	69%	16	22	17	8	6	814	4	12,960
New castle	49,177	2	5,010	4	16,614	7	23232	1	45%	4	13	12	16	1	494	3	22,335
Sheffield Wednesday	16,303	16	-4,842	19	11,262	11	-6461	13	69%	16	16	14	2	15	18,340	21	11,284
Southampton	12,520	19	2,260	8	5,499	17	-1474	7	58%	11	12	11	2	15	440	2	7,251
Sunderland	18,825	13	564	12	24,008	5	-1509	8	43%	3	23	18	2	15	16,070	20	8,161
Tottenham	31,189	7	-970	14	40,128	3	-3020	9	54%	7	14	13	3	13	10,898	15	16,980
West Ham	24,017	9	5,084	3	8,929	14	-4965	12	47%	5	8	8	8	6	3,431	8	11,181

Season End 1999 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	48,623	3	2,068	4	26,968	8	-974	5	54%	8	2	2	12	3	985	4	26,478
Aston Villa	34,876	8	20,156	2	48,314	4	9462	2	50%	3	6	6	5	12	9,682	16	17,339
Blackburn	21,274	14	-7,780	17	20,794	11	-62206	20	106%	20	19	17	7	10	8,682	14	22,465
Bolton	12,604	20	-5,122	15	7,414	17	-24752	17	80%	16	26	19	4	15	11,301	20	10,039
Charlton	16,274	17	1,249	8	16,608	14	-2645	6	51%	5	18	16	1	18	3,560	8	8,226
Chelsea	59,092	2	23	11	69,516	2	-65898	21	51%	5	3	3	15	2	1,017	5	30,180
Coventry	18,893	16	1,045	9	-5,121	19	-24129	16	70%	14	15	14	3	16	7,088	10	13,196
Everton	25,455	11	-10,769	21	18,547	12	-16292	15	80%	16	14	13	5	12	9,828	18	20,242
Fulham	6,372	21	-9,910	20	-15,247	21	-30655	19	128%	21	45	20	9	5	9,729	17	8,162
Leeds	36,971	7	711	10	27,862	7	-9395	11	50%	3	4	4	8	7	10,243	19	18,551
Leicester	23,814	13	-6,181	16	6,780	18	-6095	8	67%	11	10	9	7	10	4,366	9	15,973
Liverpool	45,265	4	-8,061	18	46,147	5	-12160	13	80%	16	7	7	8	7	8,833	15	36,273
Man City	12,731	19	-3,731	13	7,938	16	-14380	14	54%	8	47	21	5	12	8,180	13	6,887
Man Utd	110,920	1	22,411	1	107,936	1	37577	1	33%	1	1	1	22	1	264	1	36,965
Middlesbrough	28,003	9	-3,909	14	-8,071	20	-29061	18	69%	13	9	8	1	18	1,300	6	19,453
New castle	44,718	5	1,373	6	54,509	3	-9347	10	55%	10	13	12	9	5	432	2	24,491
Sheffield Wednesday	19,124	15	-9,230	19	18,249	13	-11788	12	71%	15	12	11	2	17	20,154	21	13,539
Southampton	13,448	18	2,257	3	12,266	15	-2	3	81%	19	17	15	1	18	901	3	10,912
Sunderland	24,078	12	1,465	5	25,212	9	-711	4	42%	2	21	18	8	7	7,764	11	10,008
Tottenham	42,585	6	1,293	7	41,148	6	-5402	7	51%	5	11	10	12	3	7,787	12	21,699
West Ham	26,536	10	-2,657	12	21,863	10	-9159	9	67%	11	5	5	1	18	2,891	7	17,659

Season End 2000 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	61,260	3	21,215	1	41,078	6	-7,177	7	55%	4	2	2	18	2	876	1	33,970
Aston Villa	35,848	9	-4,850	15	43,382	4	1,573	3	60%	7	6	6	9	8	15,332	20	21,551
Blackburn	12,886	19	-19,405	21	1,389	18	-68,875	21	172%	21	31	21	4	13	14,242	19	22,113
Bolton	13,436	18	-2,514	10	6,337	17	-26,146	16	69%	10	26	19	11	5	10,003	17	9,238
Charlton	11,746	20	-2,797	12	17,434	12	2,120	2	94%	19	21	17	3	15	1,380	4	10,994
Chelsea	76,679	2	-3,451	14	101,073	2	-37,588	18	61%	8	5	5	21	1	3,522	7	47,015
Coventry	20,136	14	-6,529	16	-11,499	20	-30,621	17	79%	13	14	14	2	19	5,426	12	15,818
Everton	28,141	11	-11,169	17	7,378	15	-15,155	10	79%	13	13	13	4	13	9,562	16	22,337
Fulham	7,560	21	-13,862	18	-27,909	21	-44,796	19	144%	20	29	20	8	9	10,935	18	10,917
Leeds	57,064	4	1,244	4	38,861	7	-20,962	13	49%	2	3	3	15	3	6,070	13	27,794
Leicester	26,038	13	616	5	7,078	16	-14,298	9	78%	12	8	8	10	7	4,620	11	20,426
Liverpool	46,609	6	2,242	3	46,905	3	-3,139	6	86%	17	4	4	2	19	4,446	10	40,107
Man City	17,513	16	-1,945	8	19,119	11	-1,431	5	54%	3	22	18	3	15	2,970	5	9,484
Man Utd	117,039	1	16,788	2	114,950	1	10,563	1	38%	1	1	1	13	4	6,688	14	44,791
Middlesbrough	27,687	12	-17,388	19	-2,834	19	-25,662	15	90%	18	12	12	3	15	3,400	6	24,857
New castle	45,090	7	-18,923	20	36,361	8	-46,611	20	64%	9	11	11	11	5	1,005	2	28,869
Sheffield Wednesday	18,026	15	-2,633	11	15,616	13	-16,271	11	80%	15	19	16	5	12	21,563	21	14,375
Southampton	17,068	17	-3,420	13	12,237	14	-7,495	8	81%	16	15	15	3	15	1,049	3	13,845
Sunderland	37,309	8	418	6	31,709	9	388	4	59%	6	7	7	2	19	4,200	9	22,149
Tottenham	47,974	5	-757	7	41,244	5	-24,326	14	55%	4	10	10	6	10	7,532	15	26,174
West Ham	35,699	10	-2,102	9	26,546	10	-17,582	12	70%	11	9	9	6	10	3,606	8	25,126

Season End 2001 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	64,689	5	31,367	1	92,765	3	28,064	1	63%	9	2	2	19	2	828	4	40,651
Aston Villa	39,418	9	138	6	63,473	4	-16,793	12	63%	9	8	7	2	19	14,310	20	24,880
Blackburn	17,562	18	-31,056	21	50,321	5	-9,836	6	144%	20	22	19	8	5	13,029	18	25,360
Bolton	14,490	19	-8,188	15	-1,549	18	-33,787	16	78%	14	23	20	3	15	14,069	19	11,278
Charlton	28,317	15	323	5	24,273	10	331	2	60%	8	9	8	2	19	410	2	17,067
Chelsea	67,258	4	-10,447	18	94,232	2	-66,836	21	75%	12	6	5	4	12	2,037	6	50,223
Coventry	23,940	17	-853	9	-12,188	20	-42,435	18	81%	16	19	17	3	15	5,788	12	19,278
Everton	32,853	11	-3,653	11	3,725	17	-29,609	14	80%	15	16	15	1	21	12,590	17	26,344
Fulham	9,910	21	-23,251	20	-49,360	21	-65,396	19	195%	21	21	18	5	7	8,936	16	19,308
Leeds	88,252	2	-7,589	14	35,269	8	-39,385	17	50%	3	4	4	19	2	4,503	11	43,329
Leicester	29,340	14	-6,385	13	12,094	14	-12,097	8	75%	12	13	12	5	7	4,048	9	22,129
Liverpool	82,368	3	406	4	45,481	6	-9,826	5	59%	7	3	3	23	1	6,332	13	48,880
Man City	32,363	12	-615	8	18,879	13	-9,669	4	56%	6	18	16	5	7	2,576	7	18,095
Man Utd	130,637	1	21,778	2	120,457	1	-1,237	3	38%	1	1	1	16	4	190	1	50,002
Middlesbrough	29,962	13	-21,919	19	-12,180	19	-31,842	15	108%	19	14	13	3	15	7,140	14	32,508
New castle	54,916	6	-8,854	16	23,047	11	-65,801	20	49%	2	11	10	3	15	1,975	5	26,686
Sheffield Wednesday	13,228	20	-9,072	17	7,110	16	-16,348	11	101%	18	37	21	4	12	23,738	21	13,416
Southampton	24,377	16	-202	7	12,004	15	-14,345	9	67%	11	10	9	4	12	451	3	16,386
Sunderland	46,021	8	3,011	3	34,292	9	-9,873	7	50%	3	7	6	6	6	4,065	10	23,219
Tottenham	48,396	7	-3,471	10	37,108	7	-16,186	10	52%	5	12	11	5	7	7,796	15	25,322
West Ham	38,068	10	-4,743	12	20,013	12	-25,750	13	83%	17	15	14	5	7	3,462	8	31,588

Season End 2002 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	90,967	4	-22,343	19	72,203	3	242	2	68%	12	1	1	20	1	342	2	61,453
Aston Villa	46,724	9	-350	6	62,105	4	-2,098	3	66%	10	8	8	3	15	14,931	21	30,872
Blackburn	38,479	11	-10,864	15	39,458	6	-16,439	7	77%	15	10	10	8	7	8,614	15	29,734
Bolton	36,753	14	-1,586	8	-1,110	18	-33,890	16	50%	3	16	16	4	12	6,604	11	18,448
Charlton	30,641	17	-10,728	14	17,191	11	-13,891	5	70%	14	14	14	3	15	6,100	8	21,475
Chelsea	92,882	3	-16,587	18	83,353	2	-80,715	20	60%	7	6	6	15	4	8,221	13	55,917
Coventry	16,446	21	-2,186	9	-14,282	19	-26,180	12	111%	21	31	20	1	20	10,454	18	18,275
Everton	38,231	12	1,555	4	5,281	15	-27,560	14	77%	15	15	15	4	12	10,445	17	29,247
Fulham	32,711	16	-40,276	21	-89,636	21	-107,939	21	94%	20	13	13	7	8	5,274	7	30,863
Leeds	81,503	5	-33,875	20	1,394	17	-77,891	19	66%	10	5	5	9	5	1,950	3	53,612
Leicester	17,866	20	-5,267	13	6,073	14	-14,899	6	87%	18	20	18	2	17	6,474	9	15,503
Liverpool	99,449	2	9,092	2	51,522	5	-20,578	9	56%	4	2	2	17	2	7,208	12	56,031
Man City	28,006	18	-13,882	16	4,997	16	-27,043	13	87%	18	21	19	4	12	4,419	5	24,386
Man Utd	148,070	1	32,347	1	137,443	1	933	1	48%	2	3	3	17	2	149	1	70,812
Middlesbrough	35,434	15	-16,157	17	-24,102	20	-53,583	18	85%	17	12	12	6	10	10,317	16	30,001
New castle	70,898	6	-3,079	11	36,472	8	-45,245	17	45%	1	4	4	7	8	2,945	4	32,055
Sheffield Wednesday	18,552	19	-387	7	6,723	13	-17,027	8	62%	9	40	21	6	10	14,180	20	11,411
Southampton	37,414	13	6,921	3	13,115	12	-25,672	11	60%	7	11	11	2	17	5,179	6	22,625
Sunderland	43,829	10	-2,790	10	30,755	9	-21,236	10	59%	6	17	17	0	21	8,259	14	25,782
Tottenham	65,033	7	946	5	37,663	7	-8,055	4	56%	4	9	9	9	5	6,479	10	38,576
West Ham	48,428	8	-3,502	12	18,635	10	-33,351	15	68%	12	7	7	2	17	11,029	19	33,130

Season End 2003 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	103,801	3	4,529	2	76,211	2	-60,267	18	58%	6	2	2	18	3	286	2	60,569
Aston Villa	45,447	12	-11,552	13	50,679	5	-3,972	2	71%	12	16	15	3	12	16,785	21	32,310
Blackburn	45,438	13	-12,005	14	27,453	8	-26,105	9	78%	15	6	6	10	5	9,379	18	35,512
Bolton	37,939	16	-5,692	9	-4,335	15	-37,612	13	64%	8	17	16	1	16	5,656	10	24,421
Charlton	35,141	17	-464	5	16,727	9	-12,672	4	67%	11	12	12	1	16	1,089	3	23,576
Chelsea	93,027	5	-26,530	20	55,013	3	-75,297	19	59%	7	4	4	8	8	6,209	12	54,556
Coventry	14,500	19	-5,768	10	-19,939	18	-26,391	10	87%	17	40	20	4	11	7,730	16	12,631
Everton	46,781	11	-12,980	15	-7,699	16	-31,481	11	64%	8	7	7	2	14	7,728	15	29,735
Fulham	34,885	18	-23,208	19	-112,844	21	-132,624	21	104%	19	14	13	10	5	4,366	8	36,444
Leeds	64,005	7	-49,505	21	-44,268	20	-77,997	20	88%	18	15	14	10	5	4,658	9	56,595
Leicester	6,392	21	-4,148	7	52	13	-17,701	5	139%	21	22	19	3	12	9,104	17	8,876
Liverpool	103,981	2	3,641	4	53,826	4	-18,865	6	52%	3	5	5	19	2	2,788	7	54,431
Man City	49,028	9	-15,425	16	-10,428	17	-50,082	16	72%	13	9	9	1	16	2,470	6	35,371
Man Utd	174,936	1	39,345	1	156,418	1	28,576	1	45%	1	1	1	23	1	213	1	79,517
Middlesbrough	40,229	15	-17,213	17	-34,506	19	-56,938	17	73%	14	11	11	1	16	7,371	14	29,428
New castle	96,689	4	4,369	3	36,644	6	-42,916	14	47%	2	3	3	14	4	1,109	4	45,195
Sheffield Wednesday	8,850	20	-8,361	12	-1,638	14	-23,697	8	111%	20	42	21	1	16	10,963	19	9,801
Southampton	48,875	10	-484	6	10,624	11	-20,231	7	55%	4	8	8	7	9	6,390	13	26,666
Sunderland	42,454	14	-20,642	18	10,427	12	-36,072	12	80%	16	20	18	6	10	13,484	20	34,011
Tottenham	66,506	6	-7,118	11	31,238	7	-10,641	3	57%	5	10	10	1	16	1,383	5	38,024
West Ham	51,712	8	-5,266	8	13,369	10	-44,693	15	64%	8	18	17	2	14	6,206	11	33,342

Season End 2004 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	114,562	3	10,577	4	84,363	2	-141,268	21	61%	8	1	1	18	2	742	2	69,889
Aston Villa	55,859	8	-10,652	15	37,744	7	1,998	2	60%	7	6	6	5	10	13,948	20	33,767
Blackburn	40,843	16	-5,107	13	22,346	11	-29,856	12	77%	19	15	13	2	17	10,135	16	31,308
Bolton	48,763	11	2,642	8	313	15	-25,398	10	48%	2	8	8	7	7	4,570	10	23,480
Charlton	42,606	15	11,118	3	27,845	10	-518	4	70%	15	7	7	1	20	1,568	4	29,913
Chelsea	143,615	2	-87,829	21	67,134	3	-137,186	20	80%	20	2	2	19	1	1,441	3	114,78
Coventry	7,888	21	-8,146	14	-28,085	18	-25,159	9	114%	21	32	20	3	16	11,323	19	8,968
Everton	44,302	12	-15,376	16	-23,075	17	-43,331	16	75%	18	17	15	4	14	4,453	9	33,171
Fulham	42,948	14	-2,596	11	-115,440	21	-117,987	19	72%	17	9	9	5	10	4,450	8	30,900
Leeds	54,043	9	-22,227	20	-35,853	19	-14,693	6	69%	14	19	17	1	20	9,609	14	37,084
Leicester	39,633	17	5,280	5	6,638	14	-14,190	5	61%	8	18	16	2	17	5,474	11	24,109
Liverpool	92,349	4	-21,903	19	35,606	8	-15,384	7	71%	16	4	4	12	5	9,711	15	65,635
Man City	61,932	7	-16,765	17	48,857	4	-96,452	18	61%	8	16	14	11	6	2,997	7	37,744
Man Utd	171,500	1	27,907	1	173,354	1	36,048	1	45%	1	3	3	14	4	412	1	76,874
Middlesbrough	43,047	13	-21,793	18	-51,468	20	-74,286	17	67%	13	11	10	7	7	8,017	13	28,796
New castle	90,468	5	4,220	6	32,336	9	-37,154	14	50%	3	5	5	15	3	2,061	6	44,880
Sheffield Wednesday	9,026	20	-4,105	12	-6,907	16	-27,048	11	66%	11	60	21	2	17	10,514	17	5,987
Southampton	49,823	10	2,978	7	11,364	12	-16,265	8	53%	5	12	11	4	14	1,638	5	26,301
Sunderland	28,531	19	-1,216	9	9,644	13	-37,575	15	59%	6	23	18	6	9	14,111	21	16,868
Tottenham	66,324	6	-2,464	10	42,264	5	-110	3	52%	4	14	12	5	10	6,082	12	34,556
West Ham	35,112	18	11,810	2	39,662	6	-34,459	13	66%	11	24	19	5	10	10,656	18	23,243

Season End 2005 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	115,083	4	19,265	2	122,656	2	-153,331	21	57%	8	2	2	16	5	1,154	3	66,012
Aston Villa	51,623	11	-2,560	12	35,859	8	550	3	64%	13	10	10	1	19	11,281	19	33,134
Blackburn	41,303	13	-5,044	15	-62,686	20	-107,746	18	76%	18	15	14	6	9	11,265	18	31,312
Bolton	53,068	9	3,724	7	2,088	14	-28,345	12	48%	2	6	6	4	11	3,558	7	25,418
Charlton	40,714	14	1,360	8	31,776	9	4,368	2	71%	16	11	11	3	15	2,841	6	28,888
Chelsea	148,993	2	-140,437	21	61,697	3	-144,862	20	73%	17	1	1	19	3	1,464	4	108,887
Coventry	8,686	21	-881	11	-28,966	19	-25,477	10	82%	20	39	20	3	15	10,762	17	7,095
Everton	59,953	8	23,509	1	434	15	-19,529	8	51%	4	4	4	4	11	8,146	12	30,840
Fulham	39,470	15	-12,931	19	-128,371	21	-144,106	19	86%	21	13	12	7	8	5,760	11	33,884
Leeds	31,121	17	-8,490	17	-23,984	17	-11,650	5	56%	7	34	18	2	17	9,911	15	17,535
Leicester	22,471	19	-3,984	14	3,256	13	-15,569	6	76%	18	35	19	4	11	8,982	13	17,030
Liverpool	122,413	3	9,463	4	43,139	6	-17,141	7	52%	5	5	5	20	1	9,160	14	64,233
Man City	60,864	7	-15,624	20	28,527	11	-100,262	17	62%	11	8	8	1	19	4,768	9	37,677
Man Utd	159,374	1	10,764	3	180,846	1	65,340	1	48%	2	3	3	20	1	285	1	77,010
Middlesbrough	51,988	10	5,775	5	-25,628	18	-65,837	16	56%	6	7	7	12	6	5,163	10	28,967
New castle	86,982	5	620	9	30,415	10	-37,511	14	58%	10	14	13	17	4	1,896	5	50,222
Sheffield Wednesday	9,661	20	-3,007	13	-8,385	16	-27,475	11	57%	8	49	21	1	19	10,333	16	5,508
Southampton	44,828	12	232	10	11,236	12	-21,115	9	62%	11	20	15	6	9	4,723	8	27,805
Sunderland	25,455	18	-8,789	18	51,595	4	-40,042	15	64%	13	21	16	2	17	25,083	21	16,294
Tottenham	70,550	6	4,910	6	45,813	5	-1,378	4	47%	1	9	9	8	7	1,000	2	33,142
West Ham	31,789	16	-5,104	16	35,890	7	-30,005	13	64%	13	26	17	4	11	11,451	20	20,240

Season End 2006 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	132,990	3	15,885	2	130,558	2	-262,144	21	62%	11	4	4	18	3	522	1	82,965
Aston Villa	48,982	11	-8,188	17	26,984	10	-12,138	4	78%	19	16	15	5	11	16,129	21	38,255
Blackburn	43,396	12	-6,904	14	-55,590	20	-93,776	17	77%	18	6	6	6	9	12,189	18	33,373
Bolton	54,781	10	325	8	2,397	14	-30,185	14	52%	4	8	8	13	5	4,985	7	28,533
Charlton	41,927	13	-8,086	16	29,193	9	204	3	82%	21	13	12	6	9	3,658	6	34,222
Chelsea	152,838	2	-80,233	21	81,464	3	-179,669	20	75%	17	1	1	13	5	1,669	3	114,00
Coventry	10,105	21	-3,320	11	-32,287	18	-26,000	12	70%	14	28	18	3	15	10,695	16	7,092
Everton	58,123	9	-10,794	18	-10,360	16	-21,787	9	64%	13	11	10	7	7	5,825	10	36,966
Fulham	37,458	15	-15,858	20	-144,229	21	-167,342	19	80%	20	12	11	1	19	5,936	11	30,102
Leeds	30,353	16	-4,541	12	-24,025	17	-13,405	5	52%	4	25	17	3	15	9,490	15	15,726
Leicester	20,157	19	1,621	6	4,898	13	-14,345	6	58%	10	36	20	4	12	6,722	13	11,619
Liverpool	121,676	4	-5,161	13	38,882	6	-25,617	11	57%	9	3	3	19	2	2,690	5	68,868
Man City	61,802	7	10,062	3	38,589	7	-93,877	18	56%	8	15	14	4	12	6,936	14	34,341
Man Utd	167,751	1	30,825	1	202,666	1	6,029	2	51%	3	2	2	14	4	5,322	8	85,389
Middlesbrough	23,182	18	-7,421	15	-33,662	19	-21,780	8	74%	16	14	13	24	1	5,937	12	17,139
New castle	83,086	5	-12,033	19	16,755	11	-60,909	16	63%	12	7	7	4	12	1,876	4	52,183
Sheffield Wednesday	11,613	20	-457	9	-8,842	15	-27,004	13	49%	2	39	21	1	19	13,195	19	5,667
Southampton	25,696	17	-3,295	10	8,754	12	-21,464	7	73%	15	32	19	3	15	11,087	17	18,811
Sunderland	39,378	14	4,844	5	56,439	4	-34,748	15	44%	1	20	16	2	18	15,777	20	17,353
Tottenham	74,141	6	618	7	29,956	8	9,717	1	55%	7	5	5	0	21	820	2	40,656
West Ham	60,093	8	5,986	4	39,768	5	-23,120	10	52%	4	9	9	7	7	5,388	9	31,228

Season End 2007 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	177,651	3	5,573	2	133,374	1	-268,197	19	50%	3	4	5	17	4	220	1	89,703
Aston Villa	37,196	14	-2,750	7	35,081	6	-63,218	12	60%	7	11	10	2	16	15,101	20	22,450
Blackburn	43,303	12	-3,407	8	20,991	7	-20,069	6	85%	17	10	9	13	7	13,307	18	36,712
Bolton	51,053	10	-2,031	6	383	11	-43,043	10	60%	7	7	8	3	10	6,089	9	30,715
Charlton	35,929	15	-9,878	12	19,202	8	23,350	1	95%	20	19	15	3	10	3,688	6	34,297
Chelsea	190,452	2	-75,834	21	-331,127	21	-619,632	21	70%	12	2	2	23	1	3,953	7	132,81
Coventry	9,667	21	-4,277	9	-36,564	18	-30,193	9	101%	21	37	19	1	19	11,034	14	9,810
Everton	51,412	9	-9,426	11	-19,787	16	-26,405	7	75%	14	6	7	2	16	7,036	10	38,427
Fulham	39,679	13	-15,872	16	-160,101	20	-181,745	17	89%	18	16	14	3	10	7,663	11	35,169
Leeds	26,801	16	6	4	-9,486	13	-6,826	2	53%	4	44	21	2	16	14,993	19	14,236
Leicester	14,710	19	-5,431	10	8,671	9	-14,336	3	73%	13	39	20	3	10	11,780	16	10,711
Liverpool	133,910	4	-21,655	17	-33,088	17	-245,604	18	58%	6	3	4	17	4	3,033	5	77,589
Man City	56,925	8	-11,035	13	57,177	3	-103,181	15	54%	9	14	12	4	9	11,329	15	36,381
Man Utd	212,189	1	-62,575	20	79,702	2	-604,602	20	44%	2	1	1	20	3	983	2	92,310
Middlesbrough	48,098	11	-13,345	14	-43,735	19	-84,578	14	80%	15	2	3	7	8	8,375	12	38,270
New castle	87,083	6	-34,197	19	-15,937	15	-67,316	13	65%	10	13	11	15	6	4,160	8	56,709
Sheffield Wednesday	11,321	20	1,491	3	-5,682	12	-27,796	8	58%	5	29	18	1	19	10,351	13	6,297
Southampton	23,269	18	-940	5	7,289	10	-19,192	5	65%	10	26	17	3	10	13,272	17	15,062
Sunderland	26,327	17	-15,427	15	41,012	5	-52,586	11	90%	19	21	16	0	21	20,206	21	23,722
Tottenham	103,091	5	27,745	1	46,128	4	-17,171	4	42%	1	5	6	21	2	2,016	4	43,804
West Ham	58,272	7	-21,955	18	-14,959	14	-141,954	16	76%	15	15	13	3	10	1,195	3	44,160

Season End 2008 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	209,294	3	36,668	1	159,100	1	-318,073	19	48%	3	3	3	18	3	719	2	101,30
Aston Villa	75,639	10	-7,569	10	50,299	2	-72,261	13	67%	11	6	6	1	20	10,352	13	50,447
Blackburn	56,395	13	3,030	3	24,021	7	-16,918	4	70%	12	7	7	6	8	11,000	15	39,661
Bolton	59,072	12	-8,017	11	-7,615	15	-53,542	11	66%	9	16	14	11	7	8,400	11	39,033
Charlton	26,749	16	-11,464	14	9,413	9	-23,751	6	89%	18	31	16	3	13	5,600	9	23,736
Chelsea	213,648	2	-84,504	21	-414,900	21	-710,562	21	81%	17	2	2	21	1	2,390	7	172,09
Coventry	9,194	21	-8,312	12	-3,948	13	-10,401	3	121%	21	41	19	5	9	13,956	18	11,083
Everton	75,650	9	26	7	-19,761	16	-36,752	10	59%	8	5	5	14	6	8,164	10	44,480
Fulham	53,670	14	1,590	6	-158,511	20	-192,823	16	73%	14	17	15	2	17	4,583	8	39,344
Leeds	23,249	17	4,553	2	5,053	10	-246	2	55%	4	49	21	2	17	19,161	21	12,746
Leicester	14,103	19	-14,175	15	-5,504	14	-21,686	5	103%	19	42	20	3	13	12,628	17	14,539
Liverpool	164,222	4	-40,905	18	-75,659	19	-299,838	18	55%	4	4	4	19	2	2,151	5	90,438
Man City	82,295	7	-32,648	16	24,529	6	-137,532	15	66%	9	9	8	5	9	9,060	12	54,222
Man Utd	257,116	1	-44,780	19	36,089	5	-649,429	20	47%	2	1	1	16	5	958	3	121,08
Middlesbrough	47,952	15	-8,348	13	-49,268	18	-93,842	14	72%	13	13	12	5	9	11,032	16	34,761
Newcastle	100,866	6	-34,073	17	-34,080	17	-245,053	17	79%	15	12	11	3	13	2,359	6	79,329
Sheffield Wednesday	12,317	20	2,217	5	-3,465	12	-25,941	7	58%	6	36	17	3	13	18,997	20	7,169
Southampton	14,267	18	-4,928	9	2,296	11	-27,570	8	116%	20	40	18	2	17	14,216	19	16,582
Sunderland	63,597	11	-4,894	8	48,995	3	-71,231	12	58%	6	15	13	0	21	10,433	14	37,091
Tottenham	114,788	5	2,987	4	42,610	4	-29,702	9	46%	1	11	10	17	4	674	1	52,921
West Ham	81,726	8	-72,293	20	23,672	8	53,403	1	80%	16	10	9	4	12	1,351	4	65,145

Season End 2009 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	224,018	2	45,512	1	194,330	1	-297,680	18	46%	2	4	4	21	2	792	2	103,97
Aston Villa	84,342	8	-46,225	18	39,145	5	-92,815	14	84%	14	6	6	13	7	7,448	10	70,577
Blackburn	50,931	15	3,584	4	27,605	6	-20,349	3	91%	17	15	12	7	9	10,783	16	46,143
Bolton	59,340	13	-13,221	14	-20,836	14	-64,005	12	69%	8	13	11	0	20	6,566	9	40,892
Charlton	23,578	17	-8,034	9	1,379	9	-23,516	4	71%	10	44	19	2	17	5,338	8	16,837
Chelsea	208,799	3	-47,356	19	-462,343	21	-735,728	21	80%	13	3	3	19	3	1,530	3	167,17
Coventry	10,855	20	-8,181	10	-12,100	13	-24,493	5	105%	20	37	17	5	10	8,016	12	11,367
Everton	79,669	9	-6,920	8	-26,681	15	-37,909	8	62%	7	5	5	8	8	8,511	13	49,069
Fulham	66,968	11	-8,444	11	-165,930	20	-199,988	15	69%	8	7	7	5	10	3,201	5	46,232
Leeds	23,535	16	15	5	5,068	8	84	1	52%	3	48	21	5	10	15,367	20	12,281
Leicester	11,140	19	-6,194	7	13,003	7	-25,918	7	100%	19	45	20	4	14	14,164	19	11,188
Liverpool	184,782	4	-54,864	20	-128,465	19	-351,424	19	58%	5	2	2	15	5	3,841	6	107,20
Man City	87,033	6	-92,562	21	-30,884	16	-229,634	16	95%	18	10	10	16	4	10,696	15	82,633
Man Utd	278,476	1	21,570	3	40,292	4	-566,056	20	44%	1	1	1	22	1	1,652	4	123,12
Middlesbrough	57,990	14	-12,794	13	-58,917	18	-82,176	13	59%	6	19	15	5	10	9,747	14	34,052
Newcastle	86,075	7	-22,850	16	-56,930	17	-286,976	17	85%	15	18	14	2	17	7,557	11	73,312
Sheffield Wednesday	11,170	18	-3,708	6	-7,173	12	-25,660	6	73%	11	32	16	0	20	15,866	21	8,180
Southampton	8,851	21	-9,272	12	-5,900	11	-5,322	2	129%	21	43	18	2	17	13,971	18	11,448
Sunderland	64,601	12	-26,459	17	70,991	2	-45,814	9	77%	12	16	13	4	14	12,714	17	49,530
Tottenham	113,012	5	33,398	2	62,063	3	-60,692	11	55%	4	8	8	14	6	676	1	62,567
West Ham	76,863	10	-16,166	15	-290	10	-55,472	10	87%	16	9	9	4	14	4,110	7	66,749

Season End 2010 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	224,352	2	55,968	1	255,322	2	-135,639	16	49%	2	3	3	15	4	1,061	2	110,73
Aston Villa	90,979	7	-37,591	18	21,691	6	-119,020	15	88%	15	6	6	12	6	9,811	14	79,974
Blackburn	57,776	13	-1,896	4	25,710	5	-21,002	4	82%	11	10	9	5	11	8,625	13	47,382
Bolton	61,714	12	-35,440	17	-56,276	17	-93,026	14	89%	16	14	12	5	11	7,521	10	54,971
Charlton	9,213	21	-6,645	9	-6,645	11	-12,279	3	112%	21	48	20	0	20	8,562	12	10,341
Chelsea	212,510	3	-77,286	20	-540,113	21	-733,938	21	82%	11	1	1	15	3	1,695	4	174,11
Coventry	10,954	20	-5,773	7	-17,873	13	-26,326	6	103%	19	39	17	1	17	7,783	11	11,287
Everton	79,076	8	-3,093	5	-29,774	14	-44,863	10	69%	7	8	8	12	6	7,489	9	54,311
Fulham	77,070	9	-18,878	13	-182,769	20	-190,248	19	64%	5	12	10	21	1	4,869	5	49,285
Leeds	27,533	16	1,517	2	6,767	8	3,547	1	50%	3	46	19	7	10	20,599	21	13,721
Leicester	16,219	17	-7,530	10	5,473	9	-29,503	7	89%	16	25	15	2	16	12,831	17	14,478
Liverpool	184,839	4	-19,880	14	-5,896	10	-143,393	17	66%	6	7	7	16	2	5,231	6	121,08
Man City	125,050	5	-121,300	21	293,459	1	-40,677	9	107%	20	5	5	8	9	7,078	8	133,30
Man Utd	286,416	1	-44,273	19	-40,941	16	-609,502	20	46%	1	2	2	15	4	1,607	3	131,68
Middlesbrough	41,904	15	-333	3	-58,854	18	-84,629	13	74%	9	31	16	0	20	10,495	15	31,203
New castle	52,417	14	-17,091	12	-68,541	19	-150,385	18	91%	18	21	14	3	14	15,237	19	47,458
Sheffield Wednesday	13,881	19	-3,888	6	-30,466	15	-21,972	5	69%	7	42	18	1	17	18,792	20	9,616
Southampton	14,281	18	-7,793	11	-13,246	12	-8,680	2	86%	14	51	21	5	11	14,488	18	12,279
Sunderland	65,405	11	-27,929	16	62,062	4	-65,981	11	82%	11	13	11	3	14	12,820	16	53,687
Tottenham	119,814	6	-6,539	8	70,501	3	-78,593	12	56%	4	4	4	10	8	723	1	67,203
West Ham	72,140	10	-20,647	15	13,063	7	-33,509	8	74%	9	17	13	1	17	5,704	7	53,647

Season End 2011 All figures £'000

Club	Revenue	*Rank*	Pre-Tax Profit/(Loss)	*Rank*	Net Assets/(Liabilities)	*Rank*	Net Funds/(Debt)	*Rank*	Wages/Turnover	*Rank*	League Position	*Rank*	Total Game Variance	*Rank*	Attendance Spread	*Rank*	Wage Co
Arsenal	226,825	3	14,776	3	267,955	2	-97,827	14	55%	3	4	4	18	3	560	1	124,401
Aston Villa	92,028	7	-54,013	19	-19,712	13	-153,169	18	103%	20	9	9	6	8	10,159	15	94,795
Blackburn	57,558	14	-18,615	15	17,095	7	-26,311	5	87%	14	15	13	2	16	7,999	11	49,870
Bolton	67,714	13	-26,049	17	-82,325	19	-110,600	16	83%	12	14	12	6	8	8,742	13	56,064
Charlton	8,347	21	-3,768	8	-1,487	10	-15,895	3	90%	15	57	20	4	11	11,970	18	7,531
Chelsea	228,574	2	-78,262	20	-617,879	21	-816,038	21	84%	13	2	2	12	6	1,092	2	191,21
Coventry	16,021	18	-16,141	13	-33,984	15	-35,961	6	78%	11	38	18	1	19	15,892	21	12,479
Everton	82,021	9	-5,413	9	-35,187	16	-44,914	9	71%	7	7	7	4	11	7,865	10	58,026
Fulham	77,109	12	4,792	5	-177,977	20	-192,947	19	75%	9	8	8	3	15	2,813	6	57,672
Leeds	34,475	16	343	7	9,755	9	-524	1	49%	2	27	15	2	16	12,875	19	16,960
Leicester	17,792	17	-15,216	12	-9,743	12	-46,184	10	93%	16	30	16	4	11	11,308	17	16,577
Liverpool	183,690	4	-49,317	18	184,651	4	-61,274	12	73%	8	6	6	14	4	6,655	9	134,76
Man City	153,186	6	-197,491	21	272,660	1	-42,900	8	114%	21	3	3	19	1	4,316	7	173,97
Man Utd	331,441	1	12,004	4	220,423	3	-308,258	20	46%	1	1	1	19	1	2,044	4	152,91
Middlesbrough	41,013	15	-18,747	16	-72,672	18	-98,139	15	100%	18	32	17	1	19	9,838	14	40,938
New castle	88,464	8	32,619	1	-35,922	17	-130,485	17	61%	5	12	11	2	16	11,010	16	53,585
Sheffield Wednesday	9,401	20	15,784	2	11,014	8	-5,572	2	97%	17	59	21	5	10	8,284	12	9,122
Southampton	13,373	19	-11,738	11	-24,983	14	-21,156	4	101%	19	46	19	4	11	13,796	20	13,456
Sunderland	79,447	11	-7,838	10	46,832	6	-76,841	13	77%	10	10	10	1	19	2,547	5	60,882
Tottenham	163,486	5	402	6	81,483	5	-56,080	11	56%	4	5	5	13	5	1,096	3	91,255
West Ham	80,939	10	-18,565	14	-3,502	11	-41,614	7	69%	6	20	14	8	7	4,827	8	55,704

Appendix 5 - Overall Performance Scores by Season (1993-2011)

Season End 1993	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	4	3	4	19	7	7.3	8	2	10	6.666666667	7.0625
Aston Villa	7	12	6	3	5	6.2	2	7	21	10	7.625
Blackburn	13	21	19	21	20	19.1	3	3	3	3	13.0625
Bolton	19	11	16	6	14	13.4	20	6	17	14.33333333	13.75
Charlton	20	16	20	17	21	19.35	18	16	5	13	16.96875
Chelsea	11	20	12	7	11	11.9	9	13	11	11	11.5625
Coventry	15	13	15	12	16	14.65	11	20	13	14.66666667	14.65625
Everton	10	8	9	14	11	10.55	10	10	20	13.33333333	11.59375
Fulham	21	18	18	10	17	16.85	21	21	2	14.66666667	16.03125
Leeds	5	9	21	20	4	9.85	12	5	4	7	8.78125
Leicester	14	15	10	8	9	10.65	17	14	7	12.66666667	11.40625
Liverpool	2	4	7	2	5	4.25	4	3	15	7.333333333	5.40625
Man City	9	7	8	15	8	9.05	7	10	18	11.66666667	10.03125
Man Utd	1	1	2	1	1	1.15	1	10	9	6.666666667	3.21875
Middlesbrough	17	19	17	9	18	16.5	14	15	8	12.33333333	14.9375
New castle	8	14	11	16	10	11.35	15	7	1	7.666666667	9.96875
Sheffield Wednesday	6	6	5	11	3	5.4	5	1	19	8.333333333	6.5
Southampton	16	5	14	5	19	13.6	13	16	6	11.66666667	12.875
Sunderland	18	17	13	4	15	13.8	19	16	14	16.33333333	14.75
Tottenham	3	2	1	13	2	3.65	6	7	12	8.333333333	5.40625
West Ham	12	10	3	18	11	10.85	16	16	16	16	12.78125

Season End 1994 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Scor
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	2	2	4	21	2	5.15	4	2	16	7.333333333	5.96875
Aston Villa	7	6	9	3	9	7.35	8	3	21	10.66666667	8.59375
Blackburn	13	21	3	11	21	15.6	2	7	7	5.333333333	11.75
Bolton	19	10	17	4	6	9.9	20	4	11	11.66666667	10.5625
Charlton	20	9	16	12	15	14.55	18	9	3	10	12.84375
Chelsea	9	17	14	13	10	11.95	11	6	20	12.33333333	12.09375
Coventry	16	15	15	16	17	16.1	9	19	6	11.33333333	14.3125
Everton	11	13	11	14	13	12.55	14	12	19	15	13.46875
Fulham	21	11	19	7	19	16.3	21	17	5	14.33333333	15.5625
Leeds	6	4	21	17	7	10	5	17	12	11.33333333	10.5
Leicester	14	19	13	10	10	12.4	16	19	10	15	13.375
Liverpool	4	8	8	2	14	8.9	7	12	18	12.33333333	10.1875
Man City	12	20	12	19	17	16.25	13	12	15	13.33333333	15.15625
Man Utd	1	1	2	1	1	1.15	1	1	1	1	1.09375
Middlesbrough	15	14	20	9	12	13.5	17	15	9	13.66666667	13.5625
Newcastle	5	3	7	20	4	6.85	3	15	2	6.666666667	6.78125
Sheffield Wednesday	8	12	10	8	7	8.5	6	4	17	9	8.6875
Southampton	18	16	18	6	20	16.7	15	19	8	14	15.6875
Sunderland	17	18	6	5	16	13.3	19	9	4	10.66666667	12.3125
Tottenham	3	7	1	15	3	5.1	12	9	14	11.66666667	7.5625
West Ham	10	5	5	18	5	7.7	10	7	13	10	8.5625

Season End 1995 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Score	Finance	Sporting	Overall
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375				
Arsenal	3	6	5	18	3	6	9	1	14	8	6.75	3	6	3
Aston Villa	9	3	7	2	12	7.95	15	6	21	14	10.21875	5	16	7
Blackburn	7	19	3	19	17	14	1	10	12	7.666666667	11.625	16	4	12
Bolton	18	12	16	4	7	10.3	18	8	10	12	10.9375	9	13	11
Charlton	20	15	17	13	20	17.75	19	21	5	15	16.71875	21	19	21
Chelsea	10	4	8	11	5	6.95	8	4	20	10.66666667	8.34375	4	9	6
Coventry	16	13	14	14	14	14.15	13	14	16	14.33333333	14.21875	17	18	18
Everton	8	21	12	10	12	12.45	12	10	19	13.66666667	12.90625	13	15	16
Fulham	21	11	18	7	21	16.95	21	10	4	11.66666667	14.96875	20	11	19
Leeds	6	16	20	17	8	12.05	4	16	15	11.66666667	11.90625	11	11	14
Leicester	13	5	11	12	6	8.55	16	18	6	13.33333333	10.34375	7	14	8
Liverpool	5	18	4	3	10	8.5	3	3	17	7.666666667	8.1875	6	4	5
Man City	14	9	13	20	16	14.8	14	6	9	9.666666667	12.875	18	8	15
Man Utd	1	1	1	1	1	1	2	2	1	1.666666667	1.25	1	1	1
Middlesbrough	19	14	19	5	19	16.15	17	18	11	15.33333333	15.84375	19	20	20
Newcastle	2	20	21	21	2	10.4	5	4	2	3.666666667	7.875	10	2	4
Sheffield Wednesday	11	7	9	9	8	8.6	10	14	18	14	10.625	8	16	9
Southampton	15	8	15	6	17	13.4	7	10	3	6.666666667	10.875	15	3	10
Sunderland	17	10	10	8	15	12.75	20	18	8	15.33333333	13.71875	14	20	17
Tottenham	4	2	2	15	4	5.05	6	8	13	9	6.53125	2	7	2
West Ham	12	17	6	16	11	12.05	11	16	7	11.33333333	11.78125	11	10	13

Season End 1996 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	5	14	4	15	6	8.1	5	9	4	6	7.3125
Aston Villa	6	5	7	3	2	3.95	4	3	19	8.666666667	5.71875
Blackburn	9	18	8	20	17	15.05	7	4	9	6.666666667	11.9062
Bolton	19	4	13	4	20	14	17	14	5	12	13.25
Charlton	20	7	11	8	19	14.5	20	9	7	12	13.5625
Chelsea	10	12	3	13	12	10.5	10	6	18	11.33333333	10.8125
Coventry	16	19	18	16	17	17.15	14	16	16	15.33333333	16.4687
Everton	8	17	17	18	12	13.8	6	6	15	9	12
Fulham	21	6	16	6	21	15.75	21	9	12	14	15.0937
Leeds	7	16	19	14	11	12.8	12	1	17	10	11.75
Leicester	15	9	10	9	12	11.25	19	18	13	16.66666667	13.2812
Liverpool	3	15	6	7	6	7.05	3	2	8	4.333333333	6.03125
Man City	12	13	12	17	9	11.7	16	14	11	13.66666667	12.4375
Man Utd	1	1	1	2	1	1.15	1	5	21	9	4.09375
Middlesbrough	11	20	20	19	4	12.1	11	9	3	7.666666667	10.4375
New castle	2	21	21	21	8	12.95	2	16	1	6.333333333	10.4687
Sheffield Wednesday	14	10	9	12	16	13.15	13	21	20	18	14.9687
Southampton	17	8	15	5	3	7.95	15	6	2	7.666666667	7.84375
Sunderland	18	11	14	11	15	14.1	18	18	14	16.66666667	15.0625
Tottenham	4	2	2	1	5	3.35	8	9	10	9	5.46875
West Ham	13	3	5	10	9	8.25	9	18	6	11	9.28125

Season End 1997	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	5	10	13	18	13	12.1	3	8	8	6.333333333	9.9375
Aston Villa	8	16	4	3	6	7.05	5	8	19	10.66666667	8.40625
Blackburn	14	3	8	21	21	15.3	11	16	18	15	15.1875
Bolton	19	17	17	17	20	18.5	18	8	15	13.66666667	16.6875
Charlton	20	7	14	8	17	14.15	20	14	11	15	14.4687
Chelsea	6	8	2	16	16	11.2	6	6	10	7.333333333	9.75
Coventry	17	21	20	20	17	18.5	15	8	14	12.33333333	16.1875
Everton	10	11	11	13	9	10.35	13	21	16	16.66666667	12.7187
Fulham	21	9	18	7	19	15.85	21	16	12	16.33333333	16.0312
Leeds	9	19	15	12	13	13.45	10	12	20	14	13.6562
Leicester	11	13	16	14	8	11.3	8	5	5	6	9.3125
Liverpool	3	4	9	6	2	4.1	4	3	7	4.666666667	4.3125
Man City	16	15	10	15	15	14.4	19	16	13	16	15
Man Utd	1	1	1	2	1	1.15	1	1	4	2	1.46875
Middlesbrough	7	20	21	19	7	12.85	17	1	2	6.666666667	10.5312
New castle	2	2	6	1	3	2.85	2	4	1	2.333333333	2.65625
Sheffield Wednesday	13	12	5	5	11	9.65	7	14	21	14	11.2812
Southampton	18	14	19	9	9	12.6	14	7	3	8	10.875
Sunderland	15	6	7	11	3	7.05	16	16	6	12.66666667	9.15625
Tottenham	4	5	3	4	3	3.6	9	16	17	14	7.5
West Ham	12	18	12	10	12	12.6	12	12	9	11	12

Season End 1998 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Sco
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	5	2	8	4	7	5.65	1	2	5	2.666666667	4.53125
Aston Villa	6	5	4	3	2	3.5	7	4	14	8.333333333	5.3125
Blackburn	11	6	13	20	20	15.5	6	11	17	11.33333333	13.9375
Bolton	17	16	18	17	13	15.4	16	15	6	12.33333333	14.25
Charlton	20	9	10	10	19	14.95	19	15	9	14.33333333	14.7187
Chelsea	3	11	2	21	7	8.35	4	2	10	5.333333333	7.21875
Coventry	15	17	20	19	12	15.45	10	9	11	10	13.4062
Everton	10	7	12	11	13	11.2	15	20	19	18	13.75
Fulham	21	21	19	15	21	19.8	21	11	18	16.66666667	18.625
Leeds	8	13	9	14	10	10.6	5	10	16	10.33333333	10.5
Leicester	12	15	15	5	6	9.45	9	13	7	9.666666667	9.53125
Liverpool	4	18	6	6	15	11.1	3	6	13	7.333333333	9.6875
Man City	18	20	16	16	18	17.7	20	20	12	17.33333333	17.5625
Man Utd	1	1	1	2	1	1.15	2	4	1	2.333333333	1.59375
Middlesbrough	14	10	21	18	16	15.85	17	6	4	9	13.2812
New castle	2	4	7	1	4	3.7	12	1	3	5.333333333	4.3125
Sheffield Wednesday	16	19	11	13	16	15.25	14	15	21	16.66666667	15.7812
Southampton	19	8	17	7	11	12.05	11	15	2	9.333333333	11.0312
Sunderland	13	12	5	8	3	6.9	18	15	20	17.66666667	10.9375
Tottenham	7	14	3	9	7	7.75	13	13	15	13.66666667	9.96875
West Ham	9	3	14	12	5	7.7	8	6	8	7.333333333	7.5625

Season End 1999 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	4	8	5	8	6.2	2	3	4	3	5
Aston Villa	8	2	4	2	3	3.6	6	12	16	11.33333333	6.5
Blackburn	14	17	11	20	20	17.3	17	10	14	13.66666667	15.9375
Bolton	20	15	17	17	16	16.75	19	15	20	18	17.2187
Charlton	17	8	14	6	5	8.75	16	18	8	14	10.7187
Chelsea	2	11	2	21	5	7.4	3	2	5	3.333333333	5.875
Coventry	16	9	19	16	14	14.6	14	16	10	13.33333333	14.125
Everton	11	21	12	15	16	15.25	13	12	18	14.33333333	14.9062
Fulham	21	20	21	19	21	20.55	20	5	17	14	18.0937
Leeds	7	10	7	11	3	6.45	4	7	19	10	7.78125
Leicester	13	16	18	8	11	12.65	9	10	9	9.333333333	11.4062
Liverpool	4	18	5	13	16	12.4	7	7	15	9.666666667	11.375
Man City	19	13	16	14	8	12.5	21	12	13	15.33333333	13.5625
Man Utd	1	1	1	1	1	1	1	1	1	1	1
Middlesbrough	9	14	20	18	13	14.35	8	18	6	10.66666667	12.9687
New castle	5	6	3	10	10	7.6	12	5	2	6.333333333	7.125
Sheffield Wednesday	15	19	13	12	15	14.85	11	17	21	16.33333333	15.4062
Southampton	18	3	15	3	19	13.45	15	18	3	12	12.9062
Sunderland	12	5	9	4	2	5.3	18	7	11	12	7.8125
Tottenham	6	7	6	7	5	5.9	10	3	12	8.333333333	6.8125
West Ham	10	12	10	9	11	10.55	5	18	7	10	10.3437

Season End 2000 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Sco
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	1	6	7	4	4.15	2	2	1	1.666666667	3.21875
Aston Villa	9	15	4	3	7	7.45	6	8	20	11.33333333	8.90625
Blackburn	19	21	18	21	21	20.25	21	13	19	17.66666667	19.2812
Bolton	18	10	17	16	10	13.15	19	5	17	13.66666667	13.3437
Charlton	20	12	12	2	19	14.5	17	15	4	12	13.5625
Chelsea	2	14	2	18	8	8.6	5	1	7	4.333333333	7
Coventry	14	16	20	17	13	15.25	14	19	12	15	15.1562
Everton	11	17	15	10	13	13.15	13	13	16	14	13.4687
Fulham	21	18	21	19	20	19.85	20	9	18	15.66666667	18.2812
Leeds	4	4	7	13	2	5	3	3	13	6.333333333	5.5
Leicester	13	5	16	9	12	11.25	8	7	11	8.666666667	10.2812
Liverpool	6	3	3	6	17	9.5	4	19	10	11	10.0625
Man City	16	8	11	5	3	7.2	18	15	5	12.66666667	9.25
Man Utd	1	2	1	1	1	1.15	1	4	14	6.333333333	3.09375
Middlesbrough	12	19	19	15	18	16.95	12	15	6	11	14.7187
New castle	7	20	8	20	9	11.85	11	5	2	6	9.65625
Sheffield Wednesday	15	11	13	11	15	13.5	16	12	21	16.33333333	14.5625
Southampton	17	13	14	8	16	14.2	15	15	3	11	13
Sunderland	8	6	9	4	6	6.45	7	19	9	11.66666667	8.40625
Tottenham	5	7	5	14	4	6.25	10	10	15	11.66666667	8.28125
West Ham	10	9	10	12	11	10.55	9	10	8	9	9.96875

Season End 2001 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	5	1	3	1	9	5.1	2	2	4	2.666666667	4.1875
Aston Villa	9	6	4	12	9	8.25	7	19	20	15.33333333	10.90625
Blackburn	18	21	5	6	20	15.5	19	5	18	14	14.9375
Bolton	19	15	18	16	14	15.8	20	15	19	18	16.625
Charlton	15	5	10	2	8	8	8	19	2	9.666666667	8.625
Chelsea	4	18	2	21	12	11.55	5	12	6	7.666666667	10.09375
Coventry	17	9	20	18	16	16	17	15	12	14.66666667	15.5
Everton	11	11	17	14	15	13.95	15	21	17	17.66666667	15.34375
Fulham	21	20	21	19	21	20.55	18	7	16	13.66666667	17.96875
Leeds	2	14	8	17	3	7.35	4	2	11	5.666666667	6.71875
Leicester	14	13	14	8	12	12.15	12	7	9	9.333333333	11.09375
Liverpool	3	4	6	5	7	5.5	3	1	13	5.666666667	5.5625
Man City	12	8	13	4	6	7.95	16	7	7	10	8.71875
Man Utd	1	2	1	3	1	1.45	1	4	1	2	1.65625
Middlesbrough	13	19	19	15	19	17.5	13	15	14	14	16.1875
New castle	6	16	11	20	2	8.75	10	15	5	10	9.21875
Sheffield Wednesday	20	17	16	11	18	16.8	21	12	21	18	17.25
Southampton	16	7	15	9	11	11.45	9	12	3	8	10.15625
Sunderland	8	3	9	7	3	5.25	6	6	10	7.333333333	6.03125
Tottenham	7	10	7	10	5	7.1	11	7	15	11	8.5625
West Ham	10	12	12	13	17	13.85	14	7	8	9.666666667	12.28125

Season End 2002 *All figures relate to rank scores*

Index Scores

						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	4	19	3	2	12	9	1	1	2	1.333333333	6.125
Aston Villa	9	6	4	3	10	7.3	8	15	21	14.66666667	10.0625
Blackburn	11	15	6	7	15	11.85	10	7	15	10.66666667	11.4062
Bolton	14	8	18	16	3	9.6	16	12	11	13	10.875
Charlton	17	14	11	5	14	12.65	14	15	8	12.33333333	12.5312
Chelsea	3	18	2	20	7	9.25	6	4	13	7.666666667	8.65625
Coventry	21	9	19	12	21	17.55	20	20	18	19.33333333	18.2187
Everton	12	4	15	14	15	12.75	15	12	17	14.66666667	13.4687
Fulham	16	21	21	21	20	19.85	13	8	7	9.333333333	15.9062
Leeds	5	20	17	19	10	13.15	5	5	3	4.333333333	9.84375
Leicester	20	13	14	6	18	15.15	18	17	9	14.66666667	14.9687
Liverpool	2	2	5	9	4	4.3	2	2	12	5.333333333	4.6875
Man City	18	16	16	13	18	16.65	19	12	5	12	14.9062
Man Utd	1	1	1	1	2	1.4	3	2	1	2	1.625
Middlesbrough	15	17	20	18	17	17.3	12	10	16	12.66666667	15.5625
Newcastle	6	11	8	17	1	6.7	4	8	4	5.333333333	6.1875
Sheffield Wednesday	19	7	13	8	9	10.65	21	10	20	17	13.0312
Southampton	13	3	12	11	7	8.65	11	17	6	11.33333333	9.65625
Sunderland	10	10	9	10	6	8.25	17	21	14	17.33333333	11.6562
Tottenham	7	5	7	4	4	5.05	9	5	10	8	6.15625
West Ham	8	12	10	15	12	11.55	7	17	19	14.33333333	12.5937

Season End 2003 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Scor
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	2	2	18	6	6.15	2	3	2	2.333333333	4.71875
Aston Villa	12	13	5	2	12	9.6	15	12	21	16	12
Blackburn	13	14	8	9	15	12.6	6	5	18	9.666666667	11.5
Bolton	16	9	15	13	8	11.15	16	16	10	14	12.21875
Charlton	17	5	9	4	11	9.65	12	16	3	10.33333333	9.90625
Chelsea	5	20	3	19	7	9.85	4	8	12	8	9.15625
Coventry	19	10	18	10	17	15.35	20	11	16	15.66666667	15.46875
Everton	11	15	16	11	8	11.15	7	14	15	12	11.46875
Fulham	18	19	21	21	19	19.45	13	5	8	8.666666667	15.40625
Leeds	7	21	20	20	18	17.4	14	5	9	9.333333333	14.375
Leicester	21	7	13	5	21	15.3	19	12	17	16	15.5625
Liverpool	2	4	4	6	3	3.6	5	2	7	4.666666667	4
Man City	9	16	17	16	13	13.9	9	16	6	10.33333333	12.5625
Man Utd	1	1	1	1	1	1	1	1	1	1	1
Middlesbrough	15	17	19	17	14	15.8	11	16	14	13.66666667	15
New castle	4	3	6	14	2	4.85	3	4	4	3.666666667	4.40625
Sheffield Wednesday	20	12	14	8	20	16.1	21	16	19	18.66666667	17.0625
Southampton	10	6	11	7	4	6.7	8	9	13	10	7.9375
Sunderland	14	18	12	12	16	14.8	18	10	20	16	15.25
Tottenham	6	11	7	3	5	6.05	10	16	5	10.33333333	7.65625
West Ham	8	8	10	15	8	9.35	17	14	11	14	11.09375

Season End 2004	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	4	2	21	8	7.7	1	2	2	1.666666667	5.4375
Aston Villa	8	15	7	2	7	7.6	6	10	20	12	9.25
Blackburn	16	13	11	12	19	15.4	13	17	16	15.33333333	15.375
Bolton	11	8	15	10	2	7.4	8	7	10	8.333333333	7.75
Charlton	15	3	10	4	15	10.8	7	20	4	10.33333333	10.625
Chelsea	2	21	3	20	20	14.9	2	1	3	2	10.0625
Coventry	21	14	18	9	21	17.7	20	16	19	18.33333333	17.9375
Everton	12	16	17	16	18	16.35	15	14	9	12.66666667	14.96875
Fulham	14	11	21	19	17	16.55	9	10	8	9	13.71875
Leeds	9	20	19	6	14	13.7	17	20	14	17	14.9375
Leicester	17	5	14	5	8	9.35	16	17	11	14.66666667	11.34375
Liverpool	4	19	8	7	16	12.1	4	5	15	8	10.5625
Man City	7	17	4	18	8	10.1	14	6	7	9	9.6875
Man Utd	1	1	1	1	1	1	3	4	1	2.666666667	1.625
Middlesbrough	13	18	20	17	13	15.4	10	7	13	10	13.375
Newcastle	5	6	9	14	3	6.3	5	3	6	4.666666667	5.6875
Sheffield Wednesday	20	12	16	11	11	13.25	21	17	17	18.33333333	15.15625
Southampton	10	7	12	8	5	7.55	11	14	5	10	8.46875
Sunderland	19	9	13	15	6	10.8	18	9	21	16	12.75
Tottenham	6	10	5	3	4	5.2	12	10	12	11.33333333	7.5
West Ham	18	2	6	13	11	10.25	19	10	18	15.66666667	12.28125

Season End 2005 *All figures relate to rank scores*

Index Scores

Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover	sub-domain score	League Position	Total Game Variance	Attendance Spread	sub-domain score	Index Sco
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	4	2	2	21	8	7.55	2	5	3	3.333333333	5.96875
Aston Villa	11	12	8	3	13	10.3	10	19	19	16	12.4375
Blackburn	13	15	20	18	18	17.1	14	9	18	13.66666667	15.8125
Bolton	9	7	14	12	2	7.1	6	11	7	8	7.4375
Charlton	14	8	9	2	16	11.35	11	15	6	10.66666667	11.0937
Chelsea	2	21	3	20	17	13.7	1	3	4	2.666666667	9.5625
Coventry	21	11	19	10	20	17.15	20	15	17	17.33333333	17.2187
Everton	8	1	15	8	4	6.4	4	11	12	9	7.375
Fulham	15	19	21	19	21	19.5	12	8	11	10.33333333	16.0625
Leeds	17	17	17	5	7	11.2	18	17	15	16.66666667	13.25
Leicester	19	14	13	6	18	15	19	11	13	14.33333333	14.75
Liverpool	3	4	6	7	5	5	5	1	14	6.666666667	5.625
Man City	7	20	11	17	11	12.65	8	19	9	12	12.4062
Man Utd	1	3	1	1	2	1.7	3	1	1	1.666666667	1.6875
Middlesbrough	10	5	18	16	6	9.75	7	6	10	7.666666667	8.96875
Newcastle	5	9	10	14	10	9.7	13	4	5	7.333333333	8.8125
Sheffield Wednesday	20	13	16	11	8	12.2	21	19	16	18.66666667	14.625
Southampton	12	10	12	9	11	10.85	15	9	8	10.66666667	10.7812
Sunderland	18	18	4	15	13	13.45	16	17	21	18	15.1562
Tottenham	6	6	5	4	1	3.55	9	7	2	6	4.46875
West Ham	16	16	7	13	13	13	17	11	20	16	14.125

Season End 2006	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	2	2	21	11	8.6	4	3	1	2.666666667	6.375
Aston Villa	11	17	10	4	19	13.9	15	11	21	15.66666667	14.5625
Blackburn	12	14	20	17	18	16.65	6	9	18	11	14.5312
Bolton	10	8	14	14	4	8.5	8	5	7	6.666666667	7.8125
Charlton	13	16	9	3	21	14.55	12	9	6	9	12.4687
Chelsea	2	21	3	20	17	13.7	1	5	3	3	9.6875
Coventry	21	11	18	12	14	14.9	18	15	16	16.33333333	15.4375
Everton	9	18	16	9	13	13	10	7	10	9	11.5
Fulham	15	20	21	19	20	19.25	11	19	11	13.66666667	17.1562
Leeds	16	12	17	5	4	9.1	17	15	15	15.66666667	11.5625
Leicester	19	6	13	6	10	10.6	20	12	13	15	12.25
Liverpool	4	13	6	11	9	8.7	3	2	5	3.333333333	6.6875
Man City	7	3	7	18	8	8.45	14	12	14	13.33333333	10.2812
Man Utd	1	1	1	2	3	1.95	2	4	8	4.666666667	2.96875
Middlesbrough	18	15	19	8	16	15.4	13	1	12	8.666666667	12.875
New castle	5	19	11	16	12	12.45	7	12	4	7.666666667	10.6562
Sheffield Wednesday	20	9	15	13	2	9.35	21	19	19	19.66666667	13.2187
Southampton	17	10	12	7	15	12.9	19	15	17	17	14.4375
Sunderland	14	5	4	15	1	6.1	16	18	20	18	10.5625
Tottenham	6	7	8	1	7	6.1	5	21	2	9.333333333	7.3125
West Ham	8	4	5	10	4	5.65	9	7	9	8.333333333	6.65625

Season End 2007 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	2	1	19	3	4.95	5	4	1	3.333333333	4.34375
Aston Villa	14	7	6	12	7	8.65	10	16	20	15.33333333	11.15625
Blackburn	12	8	7	6	17	11.75	9	7	18	11.33333333	11.59375
Bolton	10	6	11	10	7	8.35	8	10	9	9	8.59375
Charlton	15	12	8	1	20	13.4	15	10	6	10.33333333	12.25
Chelsea	2	21	21	21	12	14.55	2	1	7	3.333333333	10.34375
Coventry	21	9	18	9	21	16.95	19	19	14	17.33333333	17.09375
Everton	9	11	16	7	14	12.05	7	16	10	11	11.65625
Fulham	13	16	20	17	18	17.1	14	10	11	11.66666667	15.0625
Leeds	16	4	13	2	4	6.85	21	16	19	18.66666667	11.28125
Leicester	19	10	9	3	13	11.35	20	10	16	15.33333333	12.84375
Liverpool	4	17	17	18	6	10.8	4	4	5	4.333333333	8.375
Man City	8	13	3	15	9	9.45	12	9	15	12	10.40625
Man Utd	1	20	2	20	2	7.25	1	3	2	2	5.28125
Middlesbrough	11	14	19	14	16	15.1	3	8	12	7.666666667	12.3125
Newcastle	6	19	15	13	10	11.95	11	6	8	8.333333333	10.59375
Sheffield Wednesday	20	3	12	8	5	8.45	18	19	13	16.66666667	11.53125
Southampton	18	5	10	5	10	9.7	17	10	17	14.66666667	11.5625
Sunderland	17	15	5	11	19	14.8	16	21	21	19.33333333	16.5
Tottenham	5	1	4	4	1	2.5	6	2	4	4	3.0625
West Ham	7	18	14	16	15	14.25	13	10	3	8.666666667	12.15625

Season End 2008 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	1	1	19	3	4.8	3	3	2	2.666666667	4
Aston Villa	10	10	2	13	11	9.65	6	20	13	13	10.90625
Blackburn	13	3	7	4	12	8.85	7	8	15	10	9.28125
Bolton	12	11	15	11	9	10.95	14	7	11	10.66666667	10.84375
Charlton	16	14	9	6	18	13.95	16	13	9	12.66666667	13.46875
Chelsea	2	21	21	21	17	16.55	2	1	7	3.333333333	11.59375
Coventry	21	12	13	3	21	15.75	19	9	18	15.33333333	15.59375
Everton	9	7	16	10	8	9.5	5	6	10	7	8.5625
Fulham	14	6	20	16	14	14	15	17	8	13.33333333	13.75
Leeds	17	2	10	2	4	6.25	21	17	21	19.66666667	11.28125
Leicester	19	15	14	5	19	15.55	20	13	17	16.66666667	15.96875
Liverpool	4	18	19	18	4	10.45	4	2	5	3.666666667	7.90625
Man City	7	16	6	15	9	10.2	8	9	12	9.666666667	10
Man Utd	1	19	5	20	2	7.55	1	5	3	3	5.84375
Middlesbrough	15	13	18	14	13	14.2	12	9	16	12.33333333	13.5
New castle	6	17	17	17	15	14.55	11	13	6	10	12.84375
Sheffield Wednesday	20	5	12	7	6	9	17	13	20	16.66666667	11.875
Southampton	18	9	11	8	20	14.9	18	17	19	18	16.0625
Sunderland	11	8	3	12	6	7.5	13	21	14	16	10.6875
Tottenham	5	4	4	9	1	3.7	10	4	1	5	4.1875
West Ham	8	20	8	1	16	11.95	9	12	4	8.333333333	10.59375

Season End 2009	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	2	1	1	18	2	4.1	4	2	2	2.666666667	3.5625
Aston Villa	8	18	5	14	14	12.35	6	7	10	7.666666667	10.5937
Blackburn	15	4	6	3	17	11	12	9	16	12.33333333	11.5
Bolton	13	14	14	12	8	11.15	11	20	9	13.33333333	11.9687
Charlton	17	9	9	4	10	9.85	19	17	8	14.66666667	11.6562
Chelsea	3	19	21	21	13	14.8	3	3	3	3	10.375
Coventry	20	10	13	5	20	15.2	17	10	12	13	14.375
Everton	9	8	15	8	7	8.8	5	8	13	8.666666667	8.75
Fulham	11	11	20	15	8	11.75	7	10	5	7.333333333	10.0937
Leeds	16	5	8	1	3	5.7	21	10	20	17	9.9375
Leicester	19	7	7	7	19	13.6	20	14	19	17.66666667	15.125
Liverpool	4	20	19	19	5	11.3	2	5	6	4.333333333	8.6875
Man City	6	21	16	16	18	16.05	10	4	15	9.666666667	13.6562
Man Utd	1	3	4	20	1	4.6	1	1	4	2	3.625
Middlesbrough	14	13	18	13	6	11.1	15	10	14	13	11.8125
Newcastle	7	16	17	17	15	14.55	14	17	11	14	14.3437
Sheffield Wednesday	18	6	12	6	11	10.7	16	20	21	19	13.8125
Southampton	21	12	11	2	21	15.3	18	17	18	17.66666667	16.1875
Sunderland	12	17	2	9	12	10.8	13	14	17	14.66666667	12.25
Tottenham	5	2	3	11	4	4.75	8	6	1	5	4.84375
West Ham	10	15	10	10	16	13.15	9	14	7	10	11.9687

Season End 2010	*All figures relate to rank scores*										
Index Scores						sub-domain score				sub-domain score	Index Scor
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	2	1	2	16	2	3.95	3	4	2	3	3.59375
Aston Villa	7	18	6	15	15	12.9	6	6	14	8.666666667	11.3125
Blackburn	13	4	5	4	11	8.3	9	11	13	11	9.3125
Bolton	12	17	17	14	16	15.4	12	11	10	11	13.75
Charlton	21	9	11	3	21	15	20	20	12	17.33333333	15.875
Chelsea	3	20	21	21	11	14.15	1	3	4	2.666666667	9.84375
Coventry	20	7	13	6	19	14.5	17	17	11	15	14.6875
Everton	8	5	14	10	7	8.35	8	6	9	7.666666667	8.09375
Fulham	9	13	20	19	5	11.15	10	1	5	5.333333333	8.96875
Leeds	16	2	8	1	3	5.25	19	10	21	16.66666667	9.53125
Leicester	17	10	9	7	16	12.85	15	16	17	16	14.03125
Liverpool	4	14	10	17	6	9.15	7	2	6	5	7.59375
Man City	5	21	1	9	20	13.4	5	9	8	7.333333333	11.125
Man Utd	1	19	16	20	1	8.8	2	4	3	3	6.625
Middlesbrough	15	3	18	13	9	10.95	16	20	15	17	13.21875
Newcastle	14	12	19	18	18	16.65	14	14	19	15.66666667	16.28125
Sheffield Wednesday	19	6	15	5	7	9.55	18	17	20	18.33333333	12.84375
Southampton	18	11	12	2	14	12.05	21	11	18	16.66666667	13.78125
Sunderland	11	16	4	11	11	10.7	11	14	16	13.66666667	11.8125
Tottenham	6	8	3	12	4	5.95	4	8	1	4.333333333	5.34375
West Ham	10	15	7	8	9	9.6	13	17	7	12.33333333	10.625

Season End 2011 *All figures relate to rank scores*

Index Scores						sub-domain score				sub-domain score	Index Sco
Club	Revenue	Pre-Tax Profit/(Loss)	Net Assets/(Liabilities)	Net Funds/(Debt)	Wages/Turnover		League Position	Total Game Variance	Attendance Spread		
	0.15	0.15	0.15	0.15	0.4	0.625	0.333333333	0.333333333	0.333333333	0.375	
Arsenal	3	3	2	14	3	4.5	4	3	1	2.666666667	3.8125
Aston Villa	7	19	13	18	20	16.55	9	8	15	10.66666667	14.3437
Blackburn	14	15	7	5	14	11.75	13	16	11	13.33333333	12.3437
Bolton	13	17	19	16	12	14.55	12	8	13	11	13.2187
Charlton	21	8	10	3	15	12.3	20	11	18	16.33333333	13.8125
Chelsea	2	20	21	21	13	14.8	2	6	2	3.333333333	10.5
Coventry	18	13	15	6	11	12.2	18	19	21	19.33333333	14.875
Everton	9	9	16	9	7	9.25	7	11	10	9.333333333	9.28125
Fulham	12	5	20	19	9	12	8	15	6	9.666666667	11.125
Leeds	16	7	9	1	2	5.75	15	16	19	16.66666667	9.84375
Leicester	17	12	12	10	16	14.05	16	11	17	14.66666667	14.2812
Liverpool	4	18	4	12	8	8.9	6	4	9	6.333333333	7.9375
Man City	6	21	1	8	21	13.8	3	1	7	3.666666667	10
Man Utd	1	4	3	20	1	4.6	1	1	4	2	3.625
Middlesbrough	15	16	18	15	18	16.8	17	19	14	16.66666667	16.75
New castle	8	1	17	17	5	8.45	11	16	16	14.33333333	10.6562
Sheffield Wednesday	20	2	8	2	17	11.6	21	10	12	14.33333333	12.625
Southampton	19	11	14	4	19	14.8	19	11	20	16.66666667	15.5
Sunderland	11	10	6	13	10	10	10	19	5	11.33333333	10.5
Tottenham	5	6	5	11	4	5.65	5	5	3	4.333333333	5.15625
West Ham	10	14	11	7	6	8.7	14	7	8	9.666666667	9.0625